

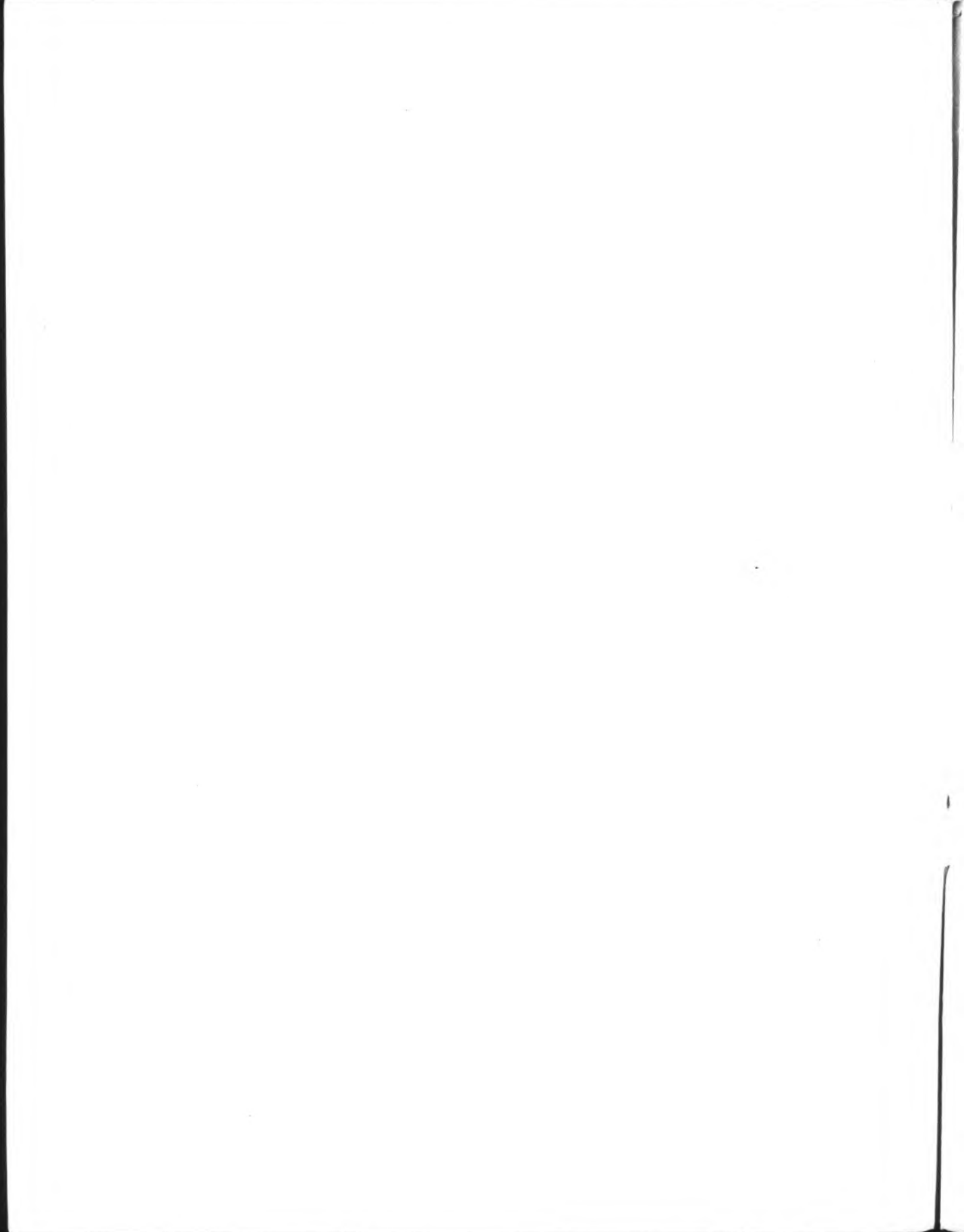
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*Florida* GAME AND FRESH WATER FISH COMMISSION

For the years 1953-1954

FLA. A. S. H.



# *Biennial Report*



*Florida*

GAME AND FRESH WATER FISH

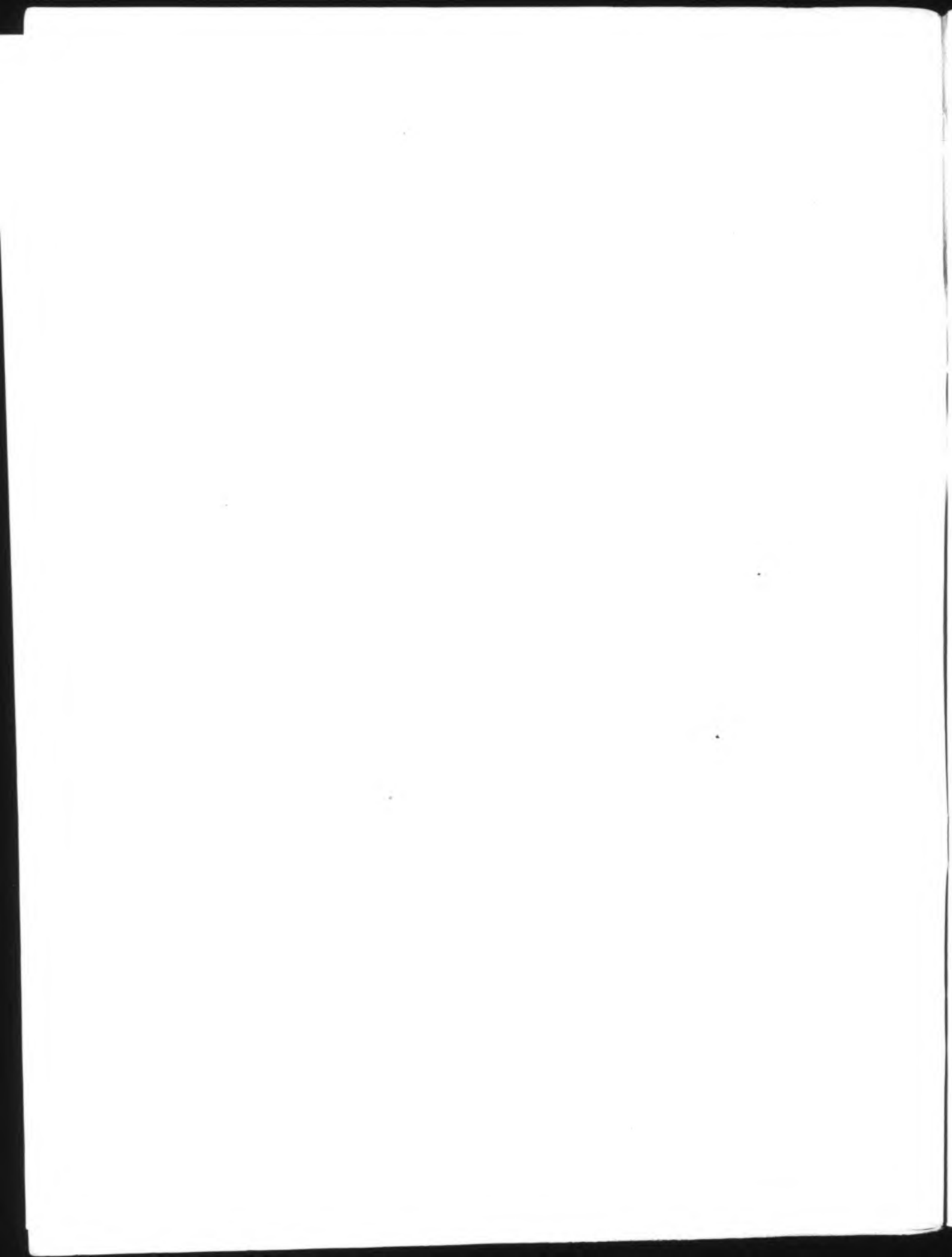
COMMISSION

FOR THE YEARS 1953-1954









STATE OF FLORIDA

# Game and Fresh Water Fish Commission



TALLAHASSEE

January 31, 1955

HONORABLE LEROY COLLINS  
*Governor of Florida*  
*State Capitol*  
*Tallahassee, Florida*

DEAR GOVERNOR COLLINS:

Herewith is submitted the Biennial Report of the Florida Game and Fresh Water Fish Commission for the period ending December 31, 1954.

Through this report we wish to make known to you, the Members of the State Legislature and the People of Florida, the activities and achievements of the Commission. We realize that the contribution we have made is but a small part of the work which must be done before Florida attains the full realization of its fish and game potentialities. We feel confident that the progress made in the past biennium will be multiplied many-fold in the years to come.

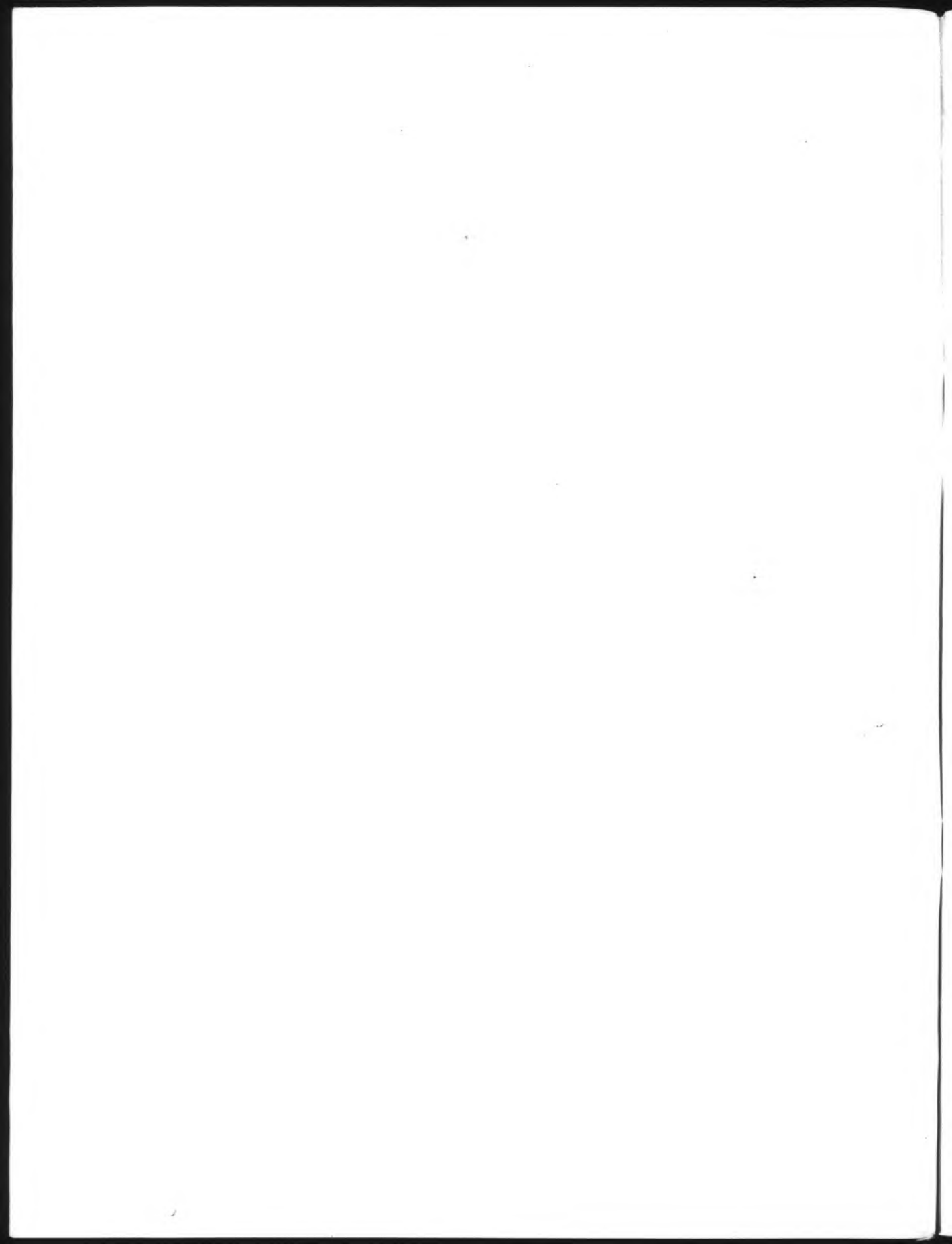
Finally we wish to express our appreciation to the many State officials and private citizens whose vision and cooperation have assisted so greatly in our conservation endeavor.

Respectfully submitted,

A handwritten signature in cursive script, reading "Leonard A. Wesson".

LEONARD A. WESSON, *Chairman*

LAW:mns



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**E. B. JONES**  
**Director**

## *Report of Progress*

**D**URING THE BIENNIUM from 1952 through 1954, the Florida Game and Fresh Water Fish Commission made definite progress in all phases of conservation work. In general, the Commission devoted its efforts toward a continued expansion of activities in wildlife conservation, and a further streamlining of operational procedures.

A great emphasis was placed on attaining sound fish and wildlife management practices as determined by technical research programs. There was a continuation of a well-balanced program to diagnose the basic causes of game and fish shortages and remedies.

There was also an emphasis placed on opening up additional public hunting and fishing areas. There was a general move to bring the Game and Fresh Water Fish Commission closer to the fisherman, hunters and sportsmen who have an interest in Florida wildlife.

We believe that the activities of the past two years will serve as a concrete indication of the determination of the Game Commission to have a progressive and aggressive program of fish and wildlife conservation.

A summary of the major programs of the Florida Game and Fresh Water Fish Commission follows:

### **FLORIDA WILDLIFE**

During the past biennium, it was determined that

FLORIDA WILDLIFE Magazine must be used solely as an educational medium through which the Game Commission is able to inform and educate the general public to accepted conservation practices and programs.

It was determined that the magazine should not, and can not be a money-making item nor a profit-and-loss operation. It must be used, instead, to obtain strong public backing for the successful conduct of a progressive fish and game conservation program.

An editorial policy was established as follows: To present to the people of Florida, especially the sportsmen who support the Commission through the purchase of hunting and fishing licenses, selected material of a technical and factual nature regarding conservation activities plus general hunting and fishing practices.

Since the establishment of the above editorial policy, there has been an increase of well over 5,000 subscriptions received during the final months of the biennium.

As an educational medium published by the Commission, FLORIDA WILDLIFE is now, and will be in the future, devoted to the following editorial contents: Fifty percent or more of the magazine will always be devoted to Commission policies, programs and activities through the use of staff-written material.

*"We believe that the activities of the past two years will serve as a concrete indication of the determination of the Game Commission to have a progressive and aggressive program of fish and wildlife conservation"* —E. B. JONES

The remainder of the magazine will be devoted to general conservation and wildlife material designed to further good sportsmanship and better fishermen and hunters.

The magazine is, and will be, an education tool of the Florida Game and Fresh Water Fish Commission. As such, it must be regarded as a capital investment in the future of wildlife conservation in Florida.

### YOUTH EDUCATION

Outstanding progress was made in Youth Conservation Education work during the past biennium. The establishment of the long-sought Junior Conservation Camp on Commission-leased property bordering Lake Eaton in the Ocala National Forest, and the reinvigoration of the Junior Sportsmen Clubs to a total of 51 active organizations throughout the State, are concrete achievements of the period. Recent approval of the construction of 10 cabins and a mess hall, and the creation of a well-rounded summer camp program, will bring the Junior Conservation Education program into full realization.

The Commission has felt that there can be no more important educational program than its Junior Conservation Education work. If the future of our state and country lies within our youth who will soon grow into adult men and women, then, most certainly, the future of wildlife conservation in Florida lies within our youngsters of today. Good conservation practices and fine sportsmanship are being instilled into the minds of thousands of youngsters through the Game Commission's Junior Conservation Clubs, Camp and League.

### DIVISIONAL PROGRAMS

The Divisional Administration set-up of the Commission has apparently resulted in a much closer contact between the sportsmen and the Game and Fresh Water Fish Commission during the past biennium.

As will be noted in the respective reports from the five Divisions, each Division office is able to put into effect a complete wildlife program

adapted to the particular needs of each Divisional area. This is important because where one Division area might have a primary problem in water hyacinth control, another Division might find that its principal problem is law enforcement, public hunting grounds, illegal seining or restoration of game populations. Thus, local problems are given local consideration by the Commission through its Division offices and attached personnel.

Formerly, it was necessary for all persons who desired Commission assistance to appeal directly to the central office in Tallahassee. Now, under the Divisional operation, these same persons may obtain immediate action in local problems through their respective Division offices.

It has been said that the Division operational system has brought the Game Commission down to the people and the sportsmen who support it.

### INFORMATION & EDUCATION

The Division system, whereby one Education Officer is located in each Division office, has brought concrete achievements to the Information and Education program during the past biennium. The Education Officer in each area is able to carry on a full-fledged informational program at the local level.

Outstanding programs include the Junior Conservation Clubs and League, the proposed Public School Resource-Use Education program, Educational Traveling Exhibits, Lecture Services, Wildlife Officers Training School, and the Employee Training and Morale Programs.

### COMMUNICATIONS

During the past biennium, an almost complete coverage of Florida has been attained by the Radio Communications Section. With 249 mobile units installed in Commission vehicles, and 20 base stations throughout the State of Florida, the Commission has a highly effective Law Enforcement and General Communications tool.

### LAW ENFORCEMENT

Proper enforcement of game and

fish laws is one of the most important programs of the Commission. During the recent months at the close of the past biennium, a concerted effort has been made to improve the general caliber of our Wildlife Officers.

The Commission has one main goal in the training of Wildlife Officers: To reach the time when the general sportsmen will no longer say "That so-and-so game warden," but, instead, "That's MY Wildlife Officer." Attaining this goal is a matter of officer training and improvement. Much of this work is being done through the conduct of the annual Wildlife Officers Training School. Other work is being done through the careful screening and grading of all applicants for the position of Wildlife Officer.

It may be noted, with a sense of accomplishment, that Wildlife Officers accomplished the following work in the field during the past biennium: Hours spent in Land Patrol, 787,440. Miles Traveled in Law Enforcement, 3,914,677. Hours spent in Water Patrol, 97,786. Licenses checked, 341,216. Total of Arrests, 4,607. Fish traps seized, 18,421. Seines Seized, 157. Hours spent in Air Patrol, 6,131.

From the above figures, it can be seen that Law Enforcement is now, and will continue to be, one of the Game Commission's major programs.

### FISH MANAGEMENT

Probably one of the most important innovations in the Commission's Fish Management program during the past biennium was the experimental three-phase Federal-Aid project to control roughfish (undesirable fish) in our fresh waters. These phases consist of Commission-operated haul seines, selective killing of fish by electricity, and partial poisoning of fish.

The Florida Lake and Stream Survey initiated by the Commission during 1954 is probably one of the most important of current programs. The survey will inventory the State's

*(Continued on Page 49)*





## THERE IS A BRIGHT FUTURE FOR FLORIDA SPORTSMEN

**O. EARLE FRYE**  
Assistant Director

# FUTURE PROSPECTS

**T**IME AND TIME again, sportsmen and interested citizens have asked the Florida Game and Fresh Water Fish Commission: "What are your plans for the future? What does the future hold for sportsmen? What will happen to our fish and game in the coming years? What will be done to conserve our natural resources for my children and their children?"

We sincerely believe that much has been accomplished during past years, as the result of cooperation from interested sportsmen and the general public. And we fully realize that much more must be done, and will be done, to properly conserve and utilize our natural wildlife resources.

We, the Commission, believe that we can promise a much brighter future for Florida sportsmen during the coming years. We believe that sportsmen are fully within their moral and legal rights in demanding a more brilliant future for Florida wildlife and the conservation thereof. We believe that it is the responsibility and the duty of this Commission to do everything within its power to attain such a future.

**BUT** this cannot be done without the firm and active backing of all interested sportsmen and general citizens. This cannot be done with-

out adequate finances. And it most certainly cannot be done without an aggressive and progressive wildlife program.

For future years, here is the general program that will be undertaken by the Game Commission, provided, of course, that the necessary financial funds are available.

First and foremost will always be





an improved Law Enforcement program. Plans are now being formulated to employ and train a progressively higher caliber of Wildlife Officers. We must obtain more and better Law Enforcement officers. We must also obtain more simplified and improved Fish and Game Laws, based on sound management principles. As usual, one-third or more of all Commission funds will be used in the Law Enforcement program.

Number two on the list of future projects is the acquisition of additional public hunting and fishing areas. This is of utmost concern to the average fisherman and hunter who has no access to private lands or fishing waters.

Approximately three and a half million acres are already under management for public hunting, through purchases and through cooperative agreements with private concerns and State and Federal agencies. The usual expenditure for the one and a half million acres of private lands under this program is ten cents per acre per year, which includes all costs for law enforcement, food planting, fencing and other management activities.

Sportsmen have been quick to acknowledge the importance of the Commission program in making good shooting available to the hunter at small cost.

We can easily acquire 5,000,000 more acres of such land for public hunting purposes. But, at ten cents an acre, we must find \$500,000 addi-



tional revenue per year to make such land available. Since the Commission's revenue comes from the sale of licenses this means that there must be an increase in license revenue funds, or the funds must be obtained from other sources.

In the public fishing area project, the Commission intends to contemplate the construction of public piers and landings and access areas in many of the rivers, lakes and streams of the State.

The Commission plans to continue to work toward improving fishing in all waters within the state. It intends to carry on a concentrated program to eliminate undesirable roughfish. And Commission funds, personnel, and equipment will continuously be used to control the destructive water hyacinths on many thousands of acres of fresh water throughout the State.

The Game Commission, in the future, intends to develop many new techniques and procedures to develop greater potentialities in game and fish populations.

The Game Commission intends to study and develop a complete Merit System whereby all employment will be based on aptitude and qualifications. A basic part of this system will be a continuous program designed to better fit all Commission employees for their particular work.

With the tremendous increases in human populations and hunting and fishing pressures in Florida during the past years, many interested persons have expressed the belief that a more satisfactory licensing pro-

gram should be developed. Sportsmen throughout the State seem to be particularly interested in obtaining short-term hunting and fishing licenses to better accommodate Florida visitors. Many sportsmen feel that a universal fishing license should be put into effect, as was recently done in our neighboring State of Georgia—so that all fishermen will contribute to the overall fishing-improvement programs now under way and to be undertaken in the future.

Because of the great amount of public interest in the above improved licensing program, the Commission, on behalf of the sportsmen, intends to support legislation designed to improve Florida's fishing and hunting license structure. Other legislation that meets with the approval of the majority of Florida's sportsmen, and which will undoubtedly be supported by the Commission, includes: More satisfactory control of air boats, stiffer penalties for game and fish law violations, special legislative appropriations for hyacinth control and acquisition of public hunting lands, and more workable laws relating to types of gear used in waters containing both fresh and salt water fish.

The Commission also hopes to improve its programs dealing with farm pond management, food and cover planting for wildlife, information and education, youth conservation education, and many other phases of conservation activities.

There is a bright future for Florida sportsmen. To attain that future, we must all work together on a state-wide cooperative basis. We are confident that we will ultimately reach the goal of realizing all of Florida's vast fish and wildlife potential.





**DON LUETHY**  
Chief, Fish  
Management

**T**HE FISH Management Division of the Florida Game and Fresh Water Fish Commission during the past two years has pursued conservation objectives in the management of fresh water fisheries through activities such as restocking, hyacinth control, lake and stream survey, stripped bass studies, rough fish netting, rough fish electrical control, chemical renovation of undesirable waters, selective poisoning, creel census, population studies, age and growth studies, pollution investigations, experimental fish removal, supplying public information and education, and numerous other miscellaneous services constantly being requested by the public. The following is a general summary of activities related to the major projects.

#### **HYACINTH CONTROL**

During the biennium this program was carried on as a State operated project rather than on a Federal Aid basis as originally set up.

An increase in the amount of funds resulted in a stepped up program but yet one that is still far from ample to meet the demands. At the present time one PA 18 Piper spray plane and two airboats are waging a constant battle against the purple menace.

During the last two years some 140 bodies of water have been treated. A total of 20,400 acres of hyacinth were killed in these lakes and streams.

Experimental work has been conducted with chemicals other than 2,4-D. Some of these have proven effective in reducing hyacinth as well as other obnoxious vegetation. However, 2,4-D still appears to be the most economical method of controlling hyacinth.

The airboats have solved many of the problems which were encountered at the beginning of the program such as the inability to get to scattered hyacinth in shallow water, reduction of time lost in traveling from landing sites to the area of infestation, and a greater load capacity.

# FISH MANAGEMENT

Local interest continues to provide the funds to purchase the necessary chemicals while the Game and Fresh Water Fish Commission furnishes the equipment, personnel, and operational cost.

The exceptional success of this program has been such that numerous requests for guidance have been received from both national and foreign agencies desiring a similar combination of techniques and specialized equipment to combat their water hyacinth and other noxious aquatic vegetation problems.

## LAKE AND STREAM SURVEY

The Florida Lake and Stream Survey was initiated by the Florida Game and Fresh Water Fish Commission, Fish Management Division, on July 1, 1954. This project is a co-operative federal-state study and is financed through the provisions of the Dingell-Johnson Act.

The purpose of the Survey is to inventory the lakes and streams of importance that are open to public use; to obtain basic physical and biological information concerning them; to evaluate the fisheries they contain as to type of fish, their abundance, and the quantity and quality of the fishing provided; to determine the importance of the individual body of water on the state and local level; and to formulate management plans. Most important, when the Survey is completed the Game and Fresh Water Fish Commission will, for the first time, have basic state-wide information of the very important inland fisheries of Florida. With this data, the formulation of policies and procedures for the proper utilization and conservation of the fresh water fisheries may have a more substantial basis from the standpoint of long range and statewide fishery management.

The Florida Game and Fresh Water Fish Commission, charged with the responsibility of managing one of the state's most important resources—her fresh water fisheries—has never had a complete inventory of the lakes and streams that supply the fishing. No one knows the number of lakes in the state open to public fishing much less the amount and kinds of fish present, or

the production, or fishing pressure.

It is hoped that the information gained from this Survey will assist the administrators and technicians so that Florida may continue to provide top-notch fishing for her residents and the nation for many years to come.

This Survey has several limitations as all such projects must. Only those lakes open to the public and over 150 acres in size will normally be surveyed. It would obviously be impossible to include all of Florida's lakes in the three years allocated to the study. The 150 acre limitation was used because generally, but not always, lakes over this size are public waters while those of lesser size frequently are not. For much the same reasons, only the more important and larger rivers will be studied.

Secondly, the Survey is by no means a comprehensive study of any individual lake or stream. Bodies of water are complex and individual units which require years of study to acquire all the facts and answers rather than the short periods that they are investigated by this project. Information may be overlooked and some of the findings possibly in error. Enough basic information will be collected, however, to provide the blueprint for future management.

## STRIPED BASS INVESTIGATION

A three year investigation of the status of the striped bass in Florida was instigated by the Commission late in 1953 aimed at determining the feasibility of management of this game species.

The striped bass is distributed along the Atlantic Seaboard from Canada to Florida and westward in the Gulf Coastal streams to Alabama. In Florida fresh waters it occurs in the St. Marys and St. Johns Rivers on the east coast and in the major rivers of west Florida from the Ochlockonee to the Perdido. There exists a hiatus in its range from the St. Johns around the peninsula of Florida to the Ochlockonee River.

The general population level of this species in Florida is very low and is not known to have ever attained considerable size. This is as-

sumed to be the normal condition because the Florida stripers comprise one or possibly two distinct Floridian races which seem barely to exist on the extreme southern limits of the range of the species.

The following facts indicate the general population level for the St. Johns River for the time period involved: these data were obtained from supervised haul seines during the period July, 1952, through February, 1953. In Lake Crescent 361 hauls with nets 1,000 to 2,000 yards in length produced 19 stripers weighing 128 pounds. The total poundage of fishes taken was 516,249. During the same time period in Big Lake George 1697 hauls with nets averaging 1,700 yards long produced 31 stripers weighing 234 pounds. The total poundage of all fishes taken was 4,101,707.

There are some restricted localities where stripers are known to congregate in appreciable numbers during some seasons of the year and in these areas a very small and unpredictable sport fishery exists. Among these is Black Creek in Clay County, a tributary of the St. Johns River. Net sampling in Black Creek during 1954 yielded two adults in April. During the latter part of July the stripers apparently moved into Black Creek and were found concentrated in one locality. In August, September, and October, 279 stripers were netted for tagging and study. An average weight of eight pounds was determined from 259 specimens. With cooling temperatures in the latter part of October the stripers either dispersed or moved out of Black Creek and none were netted the remainder of the month nor during November. Of the 279 stripers caught, 175 were tagged. Of the Black Creek specimens examined none contained any trace of food, all were heavily parasitized, and the general condition of all individuals extremely poor. It is questionable whether fishes in this condition would be able to spawn successfully during the coming spawning season.

Sport fishing in the Black Creek area yielded only two known catch records indicating the poor fishing success for 1954.

Based on morphological characters

studies have been made on the striped bass which show that the St. Johns population constitutes a distinct race which means that the fluctuations in level of abundance from year to year are dependent on the success or failure of spawning individuals from this stock.

### ROUGH FISH CONTROL

In June of 1953 the experimental controlled seining program, which was begun in 1952, was terminated by action of the Commission. At this time a federal aid project, consisting of three phases and designed to control rough fish, was put into effect. The first phase was the use of large haul seines owned by the Commission and operated by the Commission personnel; the second was designed to determine ways and means of controlling rough fish in the streams of West Florida; and the third method is a relatively new

tool in the fisheries field—that of electricity.

The seines have operated in Lakes Reedy, Panasoffkee, Newnan, Trafford, and Maggoire. In Table 1 the pounds removed in the various lakes are presented. In addition to the removal of rough fish, project personnel contacted sport fishermen to determine the effect of this removal on his creel, made studies of age and growth, food habits, and collected other biological data.

An altogether different type of problem is found in the streams of West Florida. Rough fish is the problem but it is one that can not be solved by the use of seines. The streams in this section contain large numbers of gar and in some instances carp. Several methods were used in an effort to reduce their numbers. These included gill nets, trammel nets, wire traps, hoop nets and trot lines, but none of these were successful and as a result this

part of the project was abandoned in July, 1953.

In the Everglades there are numerous canals that could furnish excellent fishing for the people of south Florida if the gar populations were reduced. At the present time the Commission is trying to develop an electrical method of selectivity killing these rough fish without damaging the existing game fish populations. This has not progressed to a workable stage but it does look very promising. A 5 kw AC generator is used as the power source and rectifiers have been added so that DC may be obtained. With the use of variable transformers many combinations of either DC or AC voltages may be obtained. In Table 2 the fish removed under the experimental controlled seining program are presented. The bass and pickerel were the only fish returned to the water. The remainder were either sold or destroyed.

**Table 1 — Composition of Adult Fish Population and Other Data as Determined by Haul Seines in Four Florida Lakes.**

| Name of Waters                        | Lake Panasoffkee<br>Oct. 19, '53-Oct. 22, '54 |            | Newnan's Lake<br>Oct. 19, '53-Nov. 26, '54 |            | Lake Trafford<br>June 14, '54-Dec. 31, '54 |            | Lake Reedy<br>Aug., '53-Feb., '54 |            |
|---------------------------------------|---|------------|--|------------|--|------------|-----------------------------------|------------|
|                                       | Pounds<br>Taken                               | Percentage | Pounds<br>Taken                            | Percentage | Pounds<br>Taken                            | Percentage | Pounds<br>Taken                   | Percentage |
| Species                               |   |            |  |            |  |            |                                   |            |
| Largemouth Bass                       | 11,506.9                                      | 3.85       | 29,670.2                                   | 3.65       | 260.8                                      | .16        | 8,752                             | 25.54      |
| Black Crappie                         | 4,585.0                                       | 1.53       | 47,692.1                                   | 5.86       | 22,582.8                                   | 13.83      | 1,689                             | 4.93       |
| Bluegill                              | 20,755.3                                      | 6.95       | 19,665.5                                   | 2.42       | 8,006.0                                    | 4.90       | 7,100                             | 20.72      |
| Shellcracker                          | 49,083.7                                      | 16.43      | 2,013.8                                    | .25        | 329.8                                      | .20        | 2,895                             | 8.45       |
| Redbreast                             | 53.2  | .02        | 1.0  |            |  |            |                                   |            |
| Warmouth                              |   |            | 7.1  |            | .1   |            | 1                                 |            |
| Stumpknocker                          |   |            | .3   |            | .1   |            |                                   |            |
| Chain Pickerel                        | 170.9   | .06        | 388.5                                      | .05        |  |            | 12                                | .03        |
| White Catfish                         | 213.4   | .07        | 1,750.1                                    | .22        |  |            | 119                               | .35        |
| Channel Catfish                       | 323.4   | .11        |  |            |  |            | 529                               | 1.54       |
| Speckled Bullhead                     | 3,944.7                                       | 1.32       | 1,040.4                                    | .13        | 597.8                                      | .37        | 637                               | 1.86       |
| Yellow Bullhead                       |   |            | 4.8  |            | 11.9                                       | .01        | 3                                 | .01        |
| Longnose Gar                          | 49,267.1                                      | 16.49      |  |            |  |            |                                   |            |
| Other Gar                             | 337.6   | .11        | 21,858.2                                   | 2.69       | 6,081.0                                    | 3.72       | 156                               | .46        |
| Mudfish                               | 10.0  |            | 6,317.8                                    | .78        | 4,068.1                                    | 2.49       | 16                                | .05        |
| Gizzard Shad                          | 156,062.3                                     | 52.23      | 682,040.5                                  | 83.82      | 121,138.6                                  | 74.20      | 12,285                            | 35.86      |
| Chub Sucker                           | 2,000.0                                       | .67        | 1,041.2                                    | .13        | 2.0  |            | 5                                 | .01        |
| Golden Shiner                         | 467.3   | .16        | 55.5                                       | .01        | 21.0                                       | .01        | 66                                | .19        |
| Tarpon                                |   |            |  |            | 174.0                                      | .11        |                                   |            |
| Total Pounds of Fish                  |   |            |  |            |  |            |                                   |            |
| Captured                              | 298,780.8                                     |            | 813,546.8                                  |            | 163,274.0                                  |            | 34,265                            |            |
| Total Pounds Rough<br>Fish Removed    | 212,625.8                                     |            | 713,608.5                                  |            | 132,094.4                                  |            | 13,816                            |            |
| Pounds Rough Fish<br>Removed per Acre | 45.384  |            | 115.462                                    |            | 85.663                                     |            | 4.93                              |            |
| Number of Hauls                       | 151   |            | 210  |            | 90   |            | 82                                |            |



**Table 2 — Pounds of Fish Removed from Six Florida Lakes During the Experimental Controlled Seining Program.\***

| Name of Waters<br>Date                | Lake George<br>(Jan.-Feb.) | Lake Crescent<br>(Jan.-Feb.) | 1953<br>Lake Harris<br>(Jan.-June) | Lake Eustis<br>(Jan.-June) | Lake Okeechobee<br>(Jan.-Feb.) | Lake Reedy<br>(Jan.-June) |
|---------------------------------------|----------------------------|------------------------------|------------------------------------|----------------------------|--------------------------------|---------------------------|
| Species                               |                            |                              |                                    |                            |                                |                           |
| Largemouth Bass ....                  | 130,828                    | 13,992                       | 69,259                             | 30,927                     | 49,209                         | 24,895                    |
| Black Crappie .....                   | 128,555                    | 52,698                       | 43,513                             | 13,427                     | 113,938                        | 5,692                     |
| Bluegill .....                        | 142,213                    | 2,596                        | 162,309                            | 102,341                    | 19,988                         | 35,248                    |
| Shellcracker .....                    | 57,551                     | 7,056                        | 72,719                             | 30,883                     | 2,344                          | 13,840                    |
| Redbreast .....                       | 1,206                      | 18                           | 1,096                              | 747                        |                                |                           |
| Warmouth .....                        | 94                         | 4                            | 1                                  |                            | 1                              |                           |
| Stumpknocker .....                    | 2                          |                              |                                    |                            |                                |                           |
| Chain Pickerel .....                  | 320                        | 3                            | 28                                 | 5                          | 8                              | 62                        |
| Channel Catfish ....                  | 34,114                     | 14,688                       | 13,452                             | 2,268                      | 8,332                          | 1,373                     |
| White Catfish .....                   | 42,941                     | 11,130                       | 4,234                              | 989                        | 18,641                         | 316                       |
| Speckled Bullhead ..                  | 12,149                     | 1,286                        | 8,730                              | 5,713                      | 1,857                          | 4,952                     |
| Yellow Bullhead ....                  | 25                         | 18                           | 52                                 | 1                          | 2                              | 18                        |
| Mullet .....                          | 1,678                      | 2                            |                                    |                            | 7,495                          |                           |
| Longnose Gar .....                    | 493                        | 1,823                        | 68,945                             | 16,763                     | 2,844                          |                           |
| Other Gar .....                       | 140                        | 1,553                        | 5,360                              | 512                        | 25,925                         | 558                       |
| Mudfish .....                         | 153                        | 448                          | 524                                | 617                        | 386                            | 162                       |
| Gizzard Shad .....                    | 340,529                    | 15,890                       | 90,669                             | 23,546                     | 65,929                         | 70,301                    |
| Chub Sucker .....                     | 146                        |                              | 21                                 | 118                        | 9                              | 39                        |
| Golden Shiner .....                   | 1,195                      | 5                            | 45                                 | 26                         | 66                             | 38                        |
| Eel .....                             | 3                          |                              | 2                                  |                            | 6                              |                           |
| Channel Bass .....                    | 329                        | 4                            |                                    |                            |                                |                           |
| White Shad .....                      | 14,672                     | 944                          |                                    |                            |                                |                           |
| Hickory Shad .....                    | 6,107                      | 15,311                       |                                    |                            |                                |                           |
| Sting Ray .....                       | 2,855                      | 453                          |                                    |                            |                                |                           |
| Misc. Salt Water ....                 | 214                        | 54                           | 1                                  |                            | 140                            |                           |
| Total Pounds of Fish<br>Taken .....   | 918,512                    | 139,976                      | 540,960                            | 228,883                    | 317,120                        | 157,494                   |
| Total Pounds of Fish<br>Removed ..... | 787,365                    | 125,981                      | 471,679                            | 197,951                    | 267,903                        | 132,537                   |

\*Pickerel and Bass taken were returned to the lakes.

### HATCHERY OPERATIONS

The Florida Game and Fresh Water Fish Commission continued its stocking program in the many lakes and streams of the State. Many of the fish went to newly constructed ponds or natural lakes that had been cleaned of their rough fish through the use of chemicals.

Operation of the Wewahitchka hatchery was curtailed because of a lack of water, but some fish have been produced in this hatchery each year for use in the surrounding area. In the Blackwater and Eagle Lake Hatcheries production was excellent. A new hatchery was set up at Okeechobee to take care of the stocking needs in the extreme southern part of the state and the first fish were stocked from this hatchery in the fall of 1954. In Table 3 the numbers and kinds of fish are listed by divisions.

### COMMERCIAL FISHERIES

The Commission continued its practice of gathering data on the commercial fisheries of the state.

Each wholesale fish dealer is required to report the poundages of fish he sold monthly. In 1953 there were 5,443,252 pounds of catfish sold. In 1954 the sale of catfish amounted to 4,385,332 pounds. Part of this drop can be accounted for by the termination of the seining program that was being carried on in 1953. Also, there were some dealers that had

not filed their reports for the last two months when the tabulation was made. In addition to the catfish, there were 1,026,484 pounds of bream and crappie sold from Lakes Harris, Eustis, Reedy, George, Crescent and Okeechobee which were caught while the experimental fish removal program was being carried on.

**Table 3 — Numbers and Species of Fish Stocked by Divisions**

| Division            | 1953<br>Number of Fish<br>Distributed |         | 1954<br>Number of Fish<br>Distributed |         |
|---------------------|---------------------------------------|---------|---------------------------------------|---------|
|                     | Bass                                  | Bream   | Bass                                  | Bream   |
| South Florida ..... | 93,885                                | 29,966  | 57,456                                | 51,120  |
| Northwest .....     | 56,820                                | 740,650 | 42,537                                | 305,570 |
| Northeast .....     | 91,770                                | 64,150  | 28,510                                | 90,375  |
| Everglades .....    | 16,296                                | 200     | 24,414                                | 4,930   |
| Central .....       | 29,848                                | 90,083  | 133,047                               | 71,950  |



# GAME MANAGEMENT

**E. B. CHAMBERLAIN**  
Federal Aid Wildlife Coordinator

**T**HE GAME Management Division of the Game and Fresh Water Fish Commission is responsible for performing all functions connected with game research and restoration, land acquisition, land management and development, and the formulation of recommendations for hunting regulations. To carry out these duties, there is a regular staff of 17 technicians, 10 non-technical men, one accountant, one secretary, and one stenographer. Temporary labor and checking station personnel are employed as required.

As in past years, the major portion of Florida's wildlife management work is financed through Federal Aid monies. The Pittman-Robertson Act, as the Federal Aid in Wildlife Restoration Act (50 Stat. 917) is generally called, was passed in 1937. It provided that the monies taken in by an already existing excise tax on sporting arms and ammunition be allocated to the states for wildlife restoration purposes. This allocation is made one-half on the basis of the total area of the

state and one-half on the basis of the number of hunting licenses sold each year. The state must match each \$3.00 in Federal money with \$1.00 of state money. A number of restrictions designed to insure a sound, constructive and long - continuing program are imposed on the spending of this money. First, the money may be spent only for wildlife research, wildlife development, land acquisition, and administration of the program. Second, each project must be described in detail and approved by the U. S. Fish and Wildlife Service to guarantee its value, soundness of operation, and personnel qualifications before it is begun. Further, all work is constantly inspected by the Fish and Wildlife Service while it is underway. Federal money is only received by the state after such work is satisfactorily completed.

Florida's P-R program got underway in 1939, but through the war years was rather inactive. A project for the purchase of certain lands in Charlotte County in 1941 might be

called the beginning of the present program, which has been expanding continually since 1946. The states are indeed fortunate in having a source of money for carrying out wildlife work of which they might otherwise be incapable—work which is inspected and supervised by the experienced and capable technicians and administrators of the Fish and Wildlife Service while it is carried out by well qualified state personnel. The Act and appropriate regulations insure the state being able to continue good, progressive programs over long periods of time. The amounts of Federal and state funds received during the past biennium and their budgeted allocations are shown in Table 1.

## WILDLIFE MANAGEMENT AREAS

Land acquisition was strongly emphasized and was one of the principal activities carried out by the Game Management Division during the biennium. This work has been generally accomplished through a system of long term leases which,

in brief, provide that the landowner grant all wildlife and fishery management rights on his property to the Commission, receiving in return the benefits of such activities as fence construction, fire lane plowing, and protection against cattle and timber theft and burning. As soon as game populations warrant, such lands are opened to public managed hunting. Therefore, there is generally a much better public feeling toward the owner who puts his land into a management area, resulting in markedly less wilful and malicious damage to his property than to those who prevent public access and usage. So far, all those who have leased land to the Commission under this general arrangement have been well satisfied. This is attested by the fact that at present more lands are being made available to the Commission than can be satisfactorily managed with the funds currently available.

In Table 2 are listed the wildlife management areas which were in operation during the biennium. Of those shown, the St. Marks, Lee and Aucilla Management Areas were not in operation previous to 1953. In addition, negotiations were completed for the addition of some 20,000 acres to the Steinhatchee Area. This land will be put under management during the coming year. Construction of the necessary exterior boundary fence began in August 1954.

It is felt that the operation of the various management areas has been extremely successful during the biennium. The controlled public hunts and other activities have been well received both by the general public and the press. On almost every area there have been demonstrable improvements in habitat conditions and increases in wildlife populations. Results of the various managed hunts are shown in Table 3.

The more important areas on which acquisition negotiations were carried out but not completed during the biennium include tracts in Escambia, Osceola, and Okeechobee Counties, the Withlacoochee Land Use Project in Citrus, Hernando, Pasco, and Sumter Counties, the Woodruff Reservoir in Jackson County, Little Talbot Island in Nassau County, and the Lake Jessup-St. Johns area in Seminole and Volusia Counties.

In the allocation of men and funds, a constant effort has been made to maintain a well balanced, productive program. During the past year, increased attention has been given to the development and maintenance of

lands already acquired. As more and more information is gathered on the best management, it is proper that increased attention be devoted to this phase of the overall work. However, to properly balance the land acquisition and development work, it is essential to continue a sound and realistic research program. Constant attempts have been made to maintain productive projects, without which it is impossible to know the direction that development and maintenance should take.

At the end of the biennium, there were 17 active projects. Plans for a new development project were submitted just before the end of the biennium, and it is expected that approval will be received shortly. Of the 17 active projects, one provides for administration of the overall program, 10 were concerned with research, three with development, and three with maintenance. It should be pointed out, however, that one of the development projects covers work on seven independent areas, and another covers work on three independent areas. Of the maintenance projects, one covers work on five separate areas. All of Florida's more important game species have been studied through one or more projects. As a result, more information is now available on quail, dove, waterfowl, turkey, squirrel, deer and other game than ever before. Knowledge of food habits, habitat requirements, population changes, mortali-

ty, migrations, and similar factors will permit sound regulations and management. Often, it is a slow and painstaking process to gather the necessary information but as such data are accumulated, they should be utilized to the fullest.

Indicative of the advanced status and quality of Florida's research program is the state's position on the program of the 1954 meeting of the Southeastern Association of Game and Fish Commissioners. Project Leaders Strode, Gainey and Overton presented papers, while Project Leader Winston and Coordinator Chamberlain served on discussion panels.

The most intensive quail management investigations have been carried out on the Commission-owned lands in Charlotte County. These studies have been primarily concerned with quail population fluctuations, the relationship between quail populations and rainfall, food habits, and the problem of integrating quail management with cattle production on south Florida range lands. By the use of feeders on a 5,000 acre experimental area, quail population densities were induced and maintained that were approximately twice those found on similar territory without feeders. Controlled burning, manipulation of grazing, and pasture improvement designed to maintain properly distributed areas of refuge cover are recommended as the most practical



**A scientific study of Florida wildlife leads to more and better hunting. (Turkeys had just finished feeding at these food plots when this photograph was taken. Droppings collected here contained more than 90% Pensacola Bahia, the grass which was planted in these plots.)**



quail management techniques for widespread application on south Florida cattle lands.

### QUAIL INVESTIGATIONS

A graduate student at the University of Florida began a special study in April, 1954, to gather necessary additional information on quail moults and population changes as well as feeder usage and movements of individual birds. This study though still incomplete indicates wide movement of quail in Charlotte County and points to perhaps a higher quail population than was previously believed to be present. During the biennium, the project leader completed and prepared for publication material resulting from the seven preceding years' work on this project. This material was accepted by the University of Florida as the project leader's doctoral thesis.

Quail investigations in north Florida were carried out primarily on a 5,500 acre experimental area in Jackson County. This area was originally developed by putting the lespedeza plantings in accordance with the general recommendations made for farm lands throughout the southeast. Previous work indicated a 34% increase in population over a three year period following development of the whole area. Last year plantings were removed from one half of the area and maintained on the other. The object is to determine whether or not the population now decreases on that half of the area on which the plantings have been destroyed. In the first winter, the population on the planted side

of the area was 187 birds. That on the half on which the plantings were destroyed was 165 birds.

As an aid to landowners and other persons who are interested in improving their property for quail, planting materials have been distributed each year. These largely consist of species which will produce good quail foods. During the bi-



ennium, the following amounts of material were distributed through north and central Florida:

|                  |                     |
|------------------|---------------------|
| Bush lespedezas  | 1,755,000 plants    |
| Partridge pea    | 10,604 lbs. of seed |
| Common lespedeza | 4,700 lbs. of seed  |
| Multiflora rose  | 73,000 plants       |

Of quail population in general, it can safely be said that the 1953-54 season was one of the best in many years and that the 1954-55 season was only slightly below this.

### WATERFOWL INVESTIGATIONS

Waterfowl investigational activities during the year have consisted of studies of the ecology of the Florida duck, banding and dyeing of waterfowl, annual Florida duck census, and regular bi-weekly inventories of waterfowl during the wintering season. Carrying capacity studies, food habits studies, land use studies, and management studies involving the preparation of recommendations for waterfowl habitat investigations of a potential waterfowl management area on Little Talbot Island were completed, and initial plantings totalling approximately 30 acres of waterfowl food plants were put in during the spring of 1954. Although there was little water on the area during the past fall due to the extreme drought through north Florida, utilization of the area was extremely good. Altogether, ponds and marshes in eight areas suitable for development of public shooting grounds were studied and management plans were drawn up. Approximately 30 ponds and marshes were investigated at the request of landowners and management recommendations submitted to them.

The carrying capacity studies are particularly promising but will require another year before results can be presented. A study of the Florida duck has produced a good picture of its food habits and correlated population movements during fall, winter and spring. Nest losses appear to be extensive, but a fairly high nesting success is main-

Table 2 — Wildlife Management Areas Operated in 1953-54

| Name                    | Acreage         |                   | Ownership   |
|-------------------------|-----------------|-------------------|---|
|                         | Open to Hunting | Closed to Hunting |   |
| 1. Eglin Air Force Res. | 390,000         | 50,000            | U. S. Air Force                                   |
| 2. Blackwater           |                 | 85,000            | Florida Forest Service                            |
| 3. Roy F. Gaskin        |                 | 110,000           | Private   |
| 4. Apalachicola         | 100,000         | 98,500            | U. S. Forest Service                              |
| 5. Steinhatchee         | 225,000         |                   | Private   |
| 6. Osceola              | 65,000          | 42,000            | U. S. Forest Service                              |
| 7. Gulf Hammock         | 100,000         | 20,000            | Private   |
| 8. Ocala                | 185,000         | 90,000            | U. S. Forest Service                              |
| 9. Tomoka               | 50,000          |                   | Private   |
| 10. Farmton             | 50,000          |                   | Private   |
| 11. Sumter              | 30,000          |                   | Private   |
| 12. Richloam            |                 | 48,000            | U. S. Soil Conservation Service                   |
| 13. Avon Park           | 38,000          | 70,000            | U. S. Air Force                                   |
| 14. C. M. Webb          | 57,000          | 5,000             | Game and Fresh Water Fish Commission              |
| 15. Fisheating Creek    | 100,000         | 175,000           | Private   |
| 16. J. W. Corbett       | 45,000          | 52,000            | Game and Fresh Water Fish Commission              |
| 17. Hendry              | 50,000          |                   | Private   |
| 18. Collier             | 300,000         | 50,000            | Private   |
| 19. Everglades          | 719,800         |                   | Central & Southern Florida Flood Control District |
| 20. Lake Butler         |                 | 96,000            | Private   |
| 21. St. Marks           | 3,000           | 65,000            | U. S. Fish and Wildlife Service                   |
| 22. Lee                 | 85,000          |                   | Private   |
| 23. Aucilla             | 100,000         |                   | Private   |



tained apparently due to repeated renesting attempts.

Large scale color dyeing of waterfowl was pioneered by Florida technicians during the past two years. In the spring of 1953, 583 ducks, mainly blue-winged teal with a smaller number of lesser scaup, pintail, shoveller, and black ducks, were trapped on the west side of Lake Okeechobee. These ducks were banded and also dyed with red color. Birds on the water and more easily in flight could be identified without difficulty by the naked eye. The red ducks were readily observed from a plane when flushed from the water. Reports were received from 12 different observations of these red dyed birds during spring migration from the states of Alabama, Minnesota, North Dakota, Ohio, South Carolina, Virginia and Wisconsin. Such information greatly increases our knowledge of waterfowl movements and migration routes, and is, of course, necessary in planning practical management operations and in making reasonable hunting regulations. The technique proved so successful in its first year that in the fall of 1954, three banding stations were set up. Birds caught at Lake Okeechobee again were dyed red, those on Merritts Island were dyed yellow, and those near Gainesville were dyed green. It is expected that about 2,000 birds will be so marked during the 1954-55 season.

One of the most promising aspects of the land use study is in connection with mosquito control work in Brevard County. Through the interest of the Board of County Commissioners and the cooperation of the

Florida State Board of Health, a series of valuable waterfowl impoundments have been established. Serving as mosquito control measures during the summer time, these areas will doubtless be able to support large numbers of waterfowl during the winter. This method of mosquito control is, of course, much preferable to drainage and ditching operations, which almost always seriously decrease the value of wetlands and marshes as waterfowl habitat. It has been apparent since the beginning of the waterfowl investigations in Florida that the current trend in land use involving drainage of marsh lands for agricul-

tural purposes is detrimental to the welfare of the wintering waterfowl population. For this reason, a major portion of the study has been directed to ways of increasing the production of waterfowl foods in an attempt to better carry the wintering population. The total waterfowl population of the state in 1953 was approximately 983,000 birds. In 1954, this figure was 1,377,000. It was impossible to perform the annual Florida duck census in the fall of 1953 because of hurricane weather and excessively high water. However, the census was carried out in the fall of 1954, and showed an approximate state population of 35,000 birds.

**Table 1 — Status of Federal and State Funds for 1953 and 1954**

|                        | 1952-53      |          | 1953-54      |          | 1954-55                  |          |
|------------------------|--------------|----------|--------------|----------|--------------------------|----------|
|                        | Amount*      | Per Cent | Amount*      | Per Cent | Amount*                  | Per Cent |
| Coordination .....     | \$ 14,364.90 | 6.4      | \$ 16,930.10 | 6.0      | \$ 18,517.40             | 7.1      |
| Research .....         | 49,119.23    | 22.0     | 85,857.21    | 30.0     | 89,379.86                | 34.5     |
| Development .....      | 158,051.14   | 70.6     | 121,236.59   | 45.0     | 103,585.16               | 40.0     |
| Maintenance .....      |              |          | 53,228.81    | 19.0     | 47,802.15                | 18.4     |
| Lands .....            | 2,400.00     | 1.0      |              |          |                          |          |
| Total .....            | \$223,935.27 |          | \$277,252.87 |          | \$259,284.67             |          |
| PR Apportionment ..... | \$133,265.13 |          | \$157,901.50 |          | \$131,738.07<br>(Actual) |          |

\*Federal monies with matching State Funds. These amounts are planned expenditures.

|                               | 1952-53**   | 1953-54**   | 1954-55***     |
|-------------------------------|-------------|-------------|----------------|
| Expenditures:                 |             |             |                |
| State Hunts .....             | \$35,350.66 | \$49,521.26 | \$51,475.00    |
| National Forest Hunts .....   | 22,855.22   | 33,323.93   | 29,855.00      |
| General Game Management ..... |             | 627.23      | 6,444.00       |
| Receipts:                     |             |             |                |
| Public Hunt Permits .....     | \$64,875.00 | \$73,195.00 | \$31,210.00*** |
| Archery Permits .....         | 590.00      | 975.00      | 1,030.00       |
| St. Marks Permits .....       |             | 1,770.00    | 2,577.00       |
| Charlotte Hunt Permits .....  | 2,189.00    | 2,095.00    | 70.00          |

\*\*Actual expenditures or receipts for F. Y. indicated.

\*\*\*Budgeted expenditures or receipts for F. Y. indicated.

\*\*\*\*Receipts through 31 December, 1954.

| Location by County           | Permit Required<br>In Addition to License | Principal Game                         |
|------------------------------|---|--|
| Santa Rosa, Okaloosa, Walton | \$2.00 Air Force Permit                   | Deer                                   |
| Santa Rosa, Okaloosa         |   |  |
| Calhoun, Gulf, Bay           |   |  |
| Liberty                      | \$5.00 Public Hunt Permit                 | Deer, Bear                             |
| Dixie, Lafayette             | \$5.00 Public Hunt Permit                 | Deer, Turkey, Squirrel                 |
| Columbia, Baker              | \$5.00 Public Hunt Permit                 | Deer, Bear                             |
| Levy                         | \$5.00 Public Hunt Permit                 | Deer, Turkey, Squirrel, Waterfowl      |
| Marion, Putnam               | \$5.00 Public Hunt Permit                 | Deer, Squirrel, Turkey                 |
| Volusia                      | \$5.00 Public Hunt Permit                 | Deer, Turkey                           |
| Volusia                      | \$5.00 Public Hunt Permit                 | Deer, Turkey                           |
| Sumter, Citrus               | \$5.00 Public Hunt Permit                 | Deer, Turkey, Squirrel                 |
| Hernando, Sumter, Pasco      | \$5.00 Public Hunt Permit                 | Deer, Turkey, Quail                    |
| Polk, Highlands              | \$5.00 Public Hunt Permit                 | Deer, Turkey, Quail, Squirrel          |
| Charlotte                    | \$5.00 Daily Permit                       | Quail                                  |
| Glades                       | \$5.00 Public Hunt Permit                 | Turkey, Quail, Squirrel                |
| Palm Beach                   | \$5.00 Public Hunt Permit                 | Deer, Quail                            |
| Hendry                       | \$5.00 Public Hunt Permit                 | Turkey, Deer                           |
| Collier                      | \$5.00 Public Hunt Permit                 | Deer, Turkey                           |
| Dade, Broward, Palm Beach    | None                                      | Deer, Waterfowl                        |
| Union, Baker, Columbia       |   |  |
| Wakulla                      | \$3.00 Daily Permit                       | Waterfowl                              |
| Lee                          | \$5.00 Public Hunt Permit                 | Turkey, Quail, Deer                    |
| Taylor, Jefferson, Wakulla   | \$5.00 Public Hunt Permit                 | Deer, Bear Squirrel, Turkey, Waterfowl |

Table 3 — Results of Management Area Hunts — 1953-54

| Area                  | Man Days Utilization | Man Hunt Days    | Deer             | Turkeys |      |       | Game Killed |              |              |       |       |       |       |
|-----------------------|----------------------|------------------|------------------|---------|------|-------|-------------|--------------|--------------|-------|-------|-------|-------|
|                       |                      |                  |                  | Toms    | Hens | Total | Quail       | Cat Squirrel | Fox Squirrel | Doves | Ducks | Geese | Snipe |
| Ocala                 | 36,200               | 32,100           | 524 <sup>1</sup> | 8       | 13   | 21    | 394         | 1,782        | 80           | 4     | 39    | 0     | 0     |
| Osceola               | 870                  | 870              | 16               | 0       | 0    | 0     | 2           | 374          | 9            | 0     | 0     | 0     | 0     |
| Apalachicola          | 260                  | 260              | 9                | 0       | 0    | 0     | 0           | 0            | 0            | 0     | 0     | 0     | 0     |
| St. Marks             |                      | 488 <sup>2</sup> |                  |         |      |       |             |              |              |       | 52    | 416   |       |
| Gulf Hammock          | 6,600                | 5,700            | 43               | 32      | 0    | 32    | 250         | 2,087        | 44           | 7     | 177   | 0     | 0     |
| Avon Park (Charlotte) | 1,080                | 1,080            | 6                | 1       | 6    | 7     | 3,412       | 89           | 0            | 6     | 12    | 0     | 80    |
| C. M. Webb            |                      | 417 <sup>2</sup> |                  |         |      |       | 2,655       | 0            | 0            | 13    | 0     | 0     | 2     |
| Steinhatchee          | 4,400                | 4,200            | 65               | 13      | 0    | 13    | 40          | 2,663        | 9            | 10    | 82    | 0     | 0     |
| Farmton               | 2,900                | 2,800            | 35               | 10      | 22   | 32    | 177         | 116          | 23           | 0     | 9     | 0     | 16    |
| Tomoka                | 1,200                | 1,200            | 22               | 9       | 10   | 0     | 41          | 46           | 12           | 0     | 0     | 0     | 0     |
| Corbett               | 1,700                | 1,600            | 39               | 0       | 0    | 0     | 380         | 10           | 0            | 2     | 4     | 0     | 0     |
| Collier               | 7,300                | 6,300            | 36               | 190     | 312  | 502   | 1,704       | 121          | 80           | 127   | 22    | 0     | 27    |
| Hendry                | 2,150                | 1,800            | 14               | 101     | 151  | 252   | 360         | 89           | 119          | 0     | 7     | 9     | 0     |
| Sumter                | 1,840                | 1,690            | 1                | 29      | 29   | 58    | 100         | 4,988        | 23           | 86    | 385   | 0     | 0     |
| Fisheating Creek      | 4,400                | 3,800            | 0                | 98      | 142  | 240   | 3,046       | 565          | 23           | 199   | 127   | 0     | 0     |
| Au. illa              | 2,360                | 2,170            | 9                | 0       | 0    | 0     | 70          | 2,064        | 0            | 10    | 50    | 13    | 0     |
| Lee                   | 810                  | 819              | 4                | 16      | 32   | 48    | 1,499       | 68           | 37           | 70    | 6     | 0     | 10    |

<sup>1</sup>Ocala deer kill total from hunt director's record of deer checked. Check station sheets totaled 342.

<sup>2</sup>Hunter days calculated as any part of a day.

Table 3—Management Area Total Kill Report—1954-55

| Area             | Deer       | Tom | Turkey Hen | Total | Quail | Game Killed  |              |      |      |       |       |     |
|------------------|------------|-----|------------|-------|-------|--------------|--------------|------|------|-------|-------|-----|
|                  |            |     |            |       |       | Cat Squirrel | Fox Squirrel | Dove | Duck | Goose | Snipe |     |
| Ocala            | 593        | 2   | 10         | 12    | 144   | 2,776        | 101          | 40   | 141  | 0     | 2     |     |
| Osceola          | 32         | 0   | 0          | 0     | 0     | 105          | 2            | 0    | 0    | 0     | 0     |     |
| Apalachicola     | 8          | 0   | 0          | 0     | 0     | 0            | 0            | 0    | 0    | 0     | 0     |     |
| Gulf Hammock     | 120        | 52  | 0          | 52    | 23    | 5,187        | 4            | 4    | 741  | 5     | 3     |     |
| Avon Park        | 1          | 2   | 7          | 9     | 1,448 | 92           | 0            | 59   | 4    | 0     | 12    |     |
| Steinhatchee     | 99         | 6   | 0          | 6     | 26    | 2,452        | 2            | 0    | 355  | 0     | 2     |     |
| Farmton          | 60         | 27  | 35         | 62    | 212   | 713          | 37           | 0    | 20   | 0     | 2     |     |
| Tomoka           | 14         | 13  | 18         | 31    | 54    | 140          | 10           | 13   | 1    | 0     | 0     |     |
| Corbett          | 38         | 0   | 0          | 0     | 306   | 9            | 0            | 37   | 34   | 0     | 0     |     |
| Collier          | 47         | 77  | 102        | 179   | 695   | 179          | 101          | 146  | 33   | 0     | 0     |     |
| Hendry           | 41         | 131 | 186        | 317   | 17    | 137          | 135          | 4    | 60   | 0     | 34    |     |
| Sumter           | 3          | 32  | 42         | 74    | 33    | 5,898        | 3            | 13   | 507  | 0     | 3     |     |
| Fisheating Creek | 0          | 93  | 136        | 229   | 3,481 | 914          | 28           | 100  | 157  | 0     | 65    |     |
| Aucilla          | 35         | 8   | 0          | 8     | 21    | 5,096        | 9            | 0    | 311  | 30    | 0     |     |
| Lee              | 2          | 12  | 14         | 26    | 2,560 | 58           | 26           | 1    | 31   | 1     | 2     |     |
| Richloam         | 17         | 19  | 19         | 38    | 373   | 2,525        | 83           | 2    | 55   | 0     | 0     |     |
| C. M. Webb       |            |     |            |       | 4,018 |              |              |      |      |       |       |     |
| St. Marks        |            |     |            |       |       |              |              |      |      |       |       | 333 |
| Eglin            | 1,800 app. |     |            |       |       |              |              |      |      |       |       |     |

### MOURNING DOVE INVESTIGATION

In the spring of 1954, a very comprehensive bulletin was published giving results of the mourning dove investigation which has been carried out so far. This publication, which has been extremely well received and was judged the most outstanding of the year by the Southeastern Section of the Wildlife Society, gives complete and up-to-date information on the status, movement and management of doves in Florida. Since preparation of this bulletin, the dove study has been reduced to such minimum part-time activity as is necessary for the accumulation of data by which more reliable indices of population status may be developed. This information is essential to the formulation of practical and satisfactory hunting regulations. These activities consist of random road

counts taken through the year, dove call counts made from the spring, and trapping and banding at West Palm Beach, Lakeland and Franklin County. During the past two years, the hunt regulations have provided a statewide split season, the only practical method by which equitable hunting can be provided on a statewide basis under the relatively short hunting season which is allowed.

Studies on squirrel during the biennium have been essentially part-time in nature and directed primarily toward development of a satisfactory and practical census technique. Information on squirrel harvest has been systematically obtained from the management areas and on a statewide basis through the Harvest and Inventory Project.

### DEER INVESTIGATION

Investigational work on deer has

consisted of general herd management studies on Eglin Field and the Ocala National Forest, as well as browse studies on several management areas, gathering detailed kill information on management areas, and extensive kill information on a statewide basis. An excellent series of food habits studies has been completed and means have been devised for estimating deer populations through the use of track counts. Trapping and tagging studies conducted at Eglin Field showed that over a period of several years most deer moved over an area of less than one section. Habitat and food production studies on the Ocala Forest have shown methods of manipulating the cutting of sand pines for pulpwood so that deer food production can be increased two or three times. The U. S. Forest Service has taken advantage of this information

**Table 4 — Game Killed During the 1952-53 Hunting Season by Resident Licensees, Estimated from the Post Season Mail Survey.**

| Division         | Deer  | Turkey | Quail     | Squirrel | Early Season Dove | Late Season Dove | Total Dove | Duck    | Coot    | Goose | Marsh Hen |
|------------------|-------|--------|-----------|----------|-------------------|------------------|------------|---------|---------|-------|-----------|
| Northwest .....  | 1,430 | 2,720  | 160,000   | 371,000  | 104,000           | 79,000           | 183,000    | 42,000  | 17,000  | 2,380 | 230       |
| Northeast .....  | 1,240 | 1,620  | 230,000   | 189,000  | 71,000            | 79,000           | 150,000    | 26,000  | 9,000   | 750   | 33,300    |
| Central .....    | 1,830 | 2,200  | 220,000   | 189,000  | 74,000            | 131,000          | 205,000    | 63,000  | 56,000  | 140   | 6,900     |
| South .....      | 1,130 | 2,950  | 370,000   | 138,000  | 74,000            | 106,000          | 180,000    | 38,000  | 20,000  | 120   | 1,100     |
| Everglades ..... | 1,360 | 3,280  | 180,000   | 9,000    | 82,000            | 42,000           | 124,000    | 39,000  | 19,000  | 740   | 1,100     |
| Total .....      | 7,000 | 13,000 | 1,200,000 | 900,000  | 405,000           | 437,000          | 842,000    | 210,000 | 120,000 | 4,100 | 43,000    |

**Table 5 — Expenditures by Resident Licensees for Hunting Activities for the 1952-53 Hunting Season, Estimated Through the Post Season Mail Survey.**

| Division            | Transportation | Guns, Shells, Hunting Clothes, Etc. | Licenses, Fees, Hunting Privileges Etc. | Board, Lodging Camping Expenses | Dogs and Dog Expenses | Total Expenditures | Division Average |
|---------------------|----------------|-------------------------------------|---|---------------------------------|-----------------------|--------------------|------------------|
| Northwest .....     | \$ 449,000     | \$1,010,000                         | \$321,000                               | \$102,000                       | \$1,122,000           | \$ 3,000,000       | \$104.00         |
| Northeast .....     | 349,000        | 495,000                             | 123,000                                 | 100,000                         | 502,000               | 1,600,000          | 78.00            |
| Central .....       | 550,000        | 678,000                             | 207,000                                 | 256,000                         | 581,000               | 2,300,000          | 98.50            |
| South .....         | 649,000        | 550,000                             | 177,000                                 | 329,000                         | 717,000               | 2,400,000          | 116.50           |
| Everglades .....    | 778,000        | 431,000                             | 118,000                                 | 190,000                         | 502,000               | 2,000,000          | 162.00           |
| State Total .....   | 2,800,000      | 3,200,000                           | 900,000                                 | 1,000,000                       | 3,400,000             | 11,300,000         |                  |
| State Average ..... | \$26.30        | \$30.00                             | \$9.00                                  | \$9.30                          | \$32.50               | \$107.00           |                  |

**Table 6 — Number of Resident Licensed Hunters of Each Species During the 1952-53 Hunting Season, Estimated Through the Post Season Mail Survey.**

| Division         | Deer Hunters | Turkey Hunters | Quail Hunters | Squirrel Hunters | Early Season Dove Hunters | Late Season Dove Hunters | Duck Hunters | Coot Hunters | Marsh Hen Hunters | Goose Hunters | Total Resident Licensed Hunters |
|------------------|--------------|----------------|---------------|------------------|---------------------------|--------------------------|--------------|--------------|-------------------|---------------|---------------------------------|
| Northwest .....  | 7,100        | 4,700          | 8,600         | 21,000           | 5,400                     | 5,900                    | 4,900        | 1,000        | 100               | 1,200         | 28,900                          |
| Northeast .....  | 6,700        | 3,200          | 8,500         | 12,000           | 3,900                     | 4,500                    | 3,700        | 800          | 1,500             | 600           | 20,200                          |
| Central .....    | 8,200        | 3,600          | 8,800         | 12,000           | 4,800                     | 5,800                    | 5,900        | 2,800        | 400               | 300           | 23,100                          |
| South .....      | 5,400        | 4,900          | 11,400        | 10,000           | 4,700                     | 6,500                    | 4,300        | 1,800        | 200               | 100           | 20,900                          |
| Everglades ..... | 4,400        | 4,300          | 6,200         | 2,000            | 4,100                     | 3,000                    | 3,600        | 1,400        | 400               | 200           | 12,500                          |
| Total .....      | 32,000       | 21,000         | 43,000        | 57,000           | 23,000                    | 26,000                   | 22,000       | 8,000        | 2,700             | 2,400         | 105,500                         |

and revised its cutting program for the forest, thus assuring a considerable increase in the amount of deer food to become available in future years. This move, without doubt, constitutes the greatest single advance in deer management on the Ocala Forest in recent years. A popular publication was prepared during the fall and winter of 1954 on the Ocala deer. This gives up-to-date and authentic information on the herd and its management. It has been extremely well received.

#### TURKEY INVESTIGATION

Research work on turkeys has been directed primarily to getting information on sex and age ratios, nesting success, food habits studies, and the effects of artificial feeders. A paper on turkey populations was

presented by Project Leader Louis Gainey at the 1954 fall meeting of the Southeastern Association of Game and Fish Commissioners. Probably the most important piece of information to come from this study is the indication that approximately 73% of the hens are lost between their first and second year. This is probably most logically explained as a nesting mortality. It does, however, raise a serious question as to the validity of the turkey hen law.

Deer and turkey restoration has been extremely successful. During the period that the Federal Aid restoration program was in effect (1949-1954), 567 whitetail deer and 682 wild turkey were restocked throughout Florida. Five hundred twenty-three deer were purchased

from out of state and 43 were trapped at Eglin Field and Blackwater Forest. Four hundred ninety-four turkey were trapped at Fish-eating Creek and 188 on the Polk-Osceola area. Following the close of this Federal Aid program, approximately 150 turkeys and 30 deer have been trapped and restocked through state funds. Restoration apparently has been more successful with wild turkey than with deer but this can be partially accounted for by the greater breeding potential of the turkey. Areas most responsive to restocking of turkey are found in Hardee, Manatee, Sarasota and DeSoto Counties. The best measurement of success in the wild turkey restoration program has been done in Hardee and DeSoto Counties

(Continued on Page 48)



## **The Northwest Florida Division *Reports--***





## ED TIMMONS Acting Division Director

**T**HE NORTHWEST Florida Division is comprised of the counties making up the Third Congressional District of Florida, with an area of approximately seven-and-a-half million acres.

Division headquarters are located at Panama City. Staff there includes a Division Director, Education Officer, Pilot, Fish Management Pond Specialist, Radio Engineer, and a secretary. There are four Area Supervisors and 31 Wildlife Officers.

Law enforcement records of the wildlife officers for the period from July, 1953, until December, 1954, are most impressive and serve as a good indication of the extent of law enforcement activities in this division.

Our wildlife officers traveled a total of 87,116 miles, seized 743 traps and 54 nets, made 1,021 arrests, checked 118,252 licenses, patrolled a total of 128,038 hours on land patrol and a total of 25,733 hours on water patrol, and 1,246 hours in air patrol.

The division pilot has played a most important role in the activities of the division. He assisted in the making of numerous arrests and took part in many air searches, as a public service. He assisted in waterfowl counts throughout the division and on the St. Marks Refuge project. The mobility provided by this method of transportation is very valuable in the performance of the division responsibility.

This division has been very active in the information and education areas, recognizing the importance of this field to the successful meeting of our responsibilities.

The Information and Education Officer, in the nine-month period from April to December, 1954, conducted 37 conservation programs, which included five programs at schools within the division, 11 programs at civic clubs, three at sportsman's clubs, and 18 at junior clubs such as the Future Farmers, Junior Conservation Clubs, and other youth organizations.

He assisted as counselor at the Junior Conservation Club summer camp and with the Wildlife Exhibit trailer. Incidentally, the exhibit has been shown in every county in the Northwest Division during the past two years. It has been exhibited at four area fairs and at every school in Wakulla and Jefferson counties.

The division personnel assisted in the Annual Apalachicola Rivercade during both years it was held and with the Annual Florida State Fox-hunters Association meeting which is held each year at St. James Island in Wakulla and Franklin counties.

In this division there are a total of 532 ponds under a fish management program. Of these, 146 came into the program in 1953 and 160 joined in 1954.

Our Fish Management Pond Specialist assists in the management and operation of the Holt and Wewa

hatcheries and in supervision of rough fish control work, creel census reports, and the investigation of fish kills. This last item, the investigation of fish kills, is a new problem in this area and was especially important during the drought which hit this section of the state so hard.

A sound and active fish stocking program is underway in this division. In 1953, bass stocking amounted to 57,475, and in 1954, 41,000. Stocking of bream totalled 808,255 in 1953 and 514,750 in 1954.

Three principal game management areas are open to public hunting in this division. They include the Eglin Air Force Proving Grounds area, the Apalachicola National Forest area, and the St. Marks Wildlife Refuge, in addition to a part of the Aucilla Management Area.

Wildlife officers of this division helped conduct the hunts which were held on these game management areas this year. They supervised the hunt which was held in the Apalachicola National Forest—the bear hunt of 1953—during which time six bears were killed. In 1954, the hunt was not as successful due to the effect of the drought.

A radio engineer, with radio and communications responsibilities for the 21 counties in the Northwest Florida Division, is on the division staff. There are five fixed radio stations. Radios are found in 37 of the division vehicles.





# The Northeast Division

## Reports:

C. N. CLYMORE  
Division Director

**T**he Northeast Division is the old Second Congressional District, and is composed of the following counties: Alachua, Baker, Bradford, Clay, Columbia, Dixie, Duval, Gilchrist, Hamilton, Lafayette, Madison, Nassau, St. Johns, Suwannee, Taylor, and Union. They range in size from little Union with 240 square miles, to sprawling Taylor with 1,032 square miles. Altogether the division covers 9,925 square miles with much of the territory being good game habitat.

Every species of game animal and fish found anywhere else in Florida, with a few minor exceptions, occurs in this division. This is fine for the sportsman, but it creates a multiplicity of problems in connection with law enforcement, which is, after all, one of the principal responsibilities of the Game and Fresh Water Fish Commission.

It takes 51 people to man the Northeast Division. The largest category is in law enforcement. There are 39 wildlife officers under the direction of six Area Supervisors. Others are a division director, education officer, two radio operators, one maintenance mechanic, a secretary, a pilot, one fish biologist, and four game biologists. The amount of work produced by this group in the past two years gives an impressive statistical total.

The officers spent 160,410 hours in land patrol, during the course of which 1,074,380 miles were traveled. They also put in 23,710 hours of water patrol, and in the course of this patrol they checked 33,053 licenses and made 697 arrests. In addition, the pilot flew 1,506 hours of air patrol in conjunction with the land force. A considerable amount of illegal equipment as well as game

and fish were seized by officers. All game and fish were donated to charitable institutions after use in court.

During the course of the past biennium the Northeast Division donated seven deer and 4,638 pounds of fish to various charitable institutions in the division. Also seized and destroyed or otherwise made use of were 39 seines whose yardage totaled 2,705, and 640 fish traps, six boats and one outboard motor being illegally used.

While law enforcement is of primary and continuing importance, there are many other important projects being carried on at various times and places in the division. There are three managed hunt areas in the division. The Aucilla, Osceola, and Steinhatchee areas keep their biologists and assistants busy the year round. These areas total 410,000 acres and offer some excellent deer, bear, turkey, and small game hunting. Nearly all field personnel are radio equipped and stations located at Jacksonville, Lake Butler, Live Oak, and Perry permit close cooperation between the office and field.

The division operates its own quail trapping and release program and has relocated 2,012 quail the past two years. These are trapped in urban or other areas where they are unavailable to hunters and placed in open territory that has suitable habitat. Through cooperation between state-wide projects and the division, there has been released 540 wild turkeys and several deer, and a large number of lespedeza and partridge peas quail feeding plots have been established.

The past two years has seen 268,600 fingerling bass and bream plant-

ed in our lakes and streams, and one cargo of 5,000 baby bass was flown to Cuba thru the cooperation of the U. S. Navy and planted in small river near the Naval base there for use of U. S. Navy personnel. A check on the effectiveness of this operation is planned for next year.

Our resident fish biologist, whom we acquired only in the past year, has plenty to do with his restocking, pond management, and hyacinth control. He has had excellent cooperation from the State wide hyacinth control group and between the two they have brought this noxious pest under control in various lakes and streams.

A rough fish control experiment in Newnan's Lake in Alachua County has resulted in the destruction of over 750,000 pounds of rough fish. This program is still continuing with the results yet to be analyzed. A striped bass investigation was carried out mostly in the Northeast division. This project too is unfinished.

One of the activities in the Northeast Division of which we are most proud is our monthly divisional meeting. Except during hunting season, the men get together at some place in the division to "put on a feed" and have a general get-together for all hands. At one of the early meetings it was suggested that a formal organization be started and this was done. The men organized the Northeast Division Wildlife Officer's Club, elected officers, opened a bank account, and now conduct all business that affects all the men. We feel that these meetings have increased the effectiveness of our personnel and of our efforts on behalf of the improvement and conservation of Florida's fish and game.



**DAVID SWINDELL**  
Division Director

# The Central Florida Division

## *Reports:*

**A**T THE END of the three-year existence of the Central Florida Division, it is worthwhile to review the progress which has been made by the division since its activation in November, 1951.

While the staff has remained almost identical in size throughout the period, much has been accomplished. At the beginning of this period much of the equipment was old and in poor condition. The expense of upkeep of this equipment was very high and many items were unreliable.

The radio system was then in its infancy, and Tallahassee and Williston were the only stations in operation. Only twelve mobile units were in use in the field—a coverage of 32% of the field personnel. Most of the value of these units was neutralized by the lack of stations, which often kept the officers who had radios from reaching one another because of the distance involved. During this time an effort was made to alleviate this situation by the use of an airplane which operated as a station in the relaying of messages; while the airplane helped the situation greatly, it still failed to give

adequate coverage when it was needed.

Due to the distance and resultant poor liaison between the field personnel and the Tallahassee office, many administrative details were quite slowly handled and often an answer to a problem arrived too late to be of any value to the inquiring field man.

Only four management areas were in existence in the Central Division in 1951, with a total acreage of 385,000 acres. However, at this time there were only thirteen management areas in the entire state, totaling 1,667,000 acres. Many of these areas were quite new and had not been under management long enough for the game populations to have increased.

Prior to the division organization, all publicity and public relations were handled by one man in the Tallahassee office. With the activation of the division, an Information and Education Officer was assigned to this work for each division. Early in 1952 the junior conservation program was organized and the formation of clubs under this program was assigned to the division educa-

tion officers.

An inspection of the Central Division records at the present time reveals a great deal of advancement since the days of early 1951. Although the number of people on the division staff has changed only slightly, the pay scale has been improved, equipment is much better, our officers are better trained, and our organization is now more efficient than ever before.

There are now six management areas in the division, encompassing nearly one half million acres. The newest of these, Richloam, just concluded its first hunt with a kill which promises a very good future as a public hunt area. A comparison of the kill figures in the accompanying table shows that the Central Division management areas have produced a significant increase in harvestable game in recent years. It is felt that these areas will play an increasing part in providing good hunting for years to come. These areas are so situated that a hunter can reach a management area by travelling less than one hundred miles from any point in the Central Division.





At the present time, the Central Division is almost 100% radio-equipped, and the recent addition of new mobile units will equip all field personnel with vehicular radios. With radio stations at Williston, Leesburg, San Mateo, Tomoka and St. Cloud, it is possible to relay messages from any point in the division to the division office. This makes the prompt handling of emergency calls and administrative matters in a matter of minutes, where it often took several days under the old system.

During the past two years alone, the enforcement officers of the division have made over 600 arrests, seized 35 illegal seines and over 900 traps, along with 15 boats and 10 outboard motors, all of which were used in illegal operations. A total of 55,677 licenses were checked, 195,485 hours were spent in land patrol and 35,143 hours spent in water patrol. During this time, two of our officers were injured by game violators while making arrests. In one instance, the violators received an eighteen months jail sentence, while the other case is still pending. These officers also participate in junior conservation work, game and fish management, and public relations activities such as fishathons of chil-

dren, fairs and boatcades. One of the oldest and most popular boatcades begins at Kissimmee each fall and travels a route of many miles of the Central Division waters. Central Division personnel escort this party each year.

During this year division personnel travelled nearly 900,000 miles in the performance of their duties.

Fish and game management technicians are available to the public for advice and assistance in the development of better hunting and fishing areas. The Division Fish Management Technician annually checks hundreds of small lakes and ponds. This aid may be in the form of weed control, rough fish removed or restocking when it is found necessary. In one year alone, several hundred thousand bass and bluegill bream are distributed in waters of the Central Division to supplement or restore deficient fish populations.

The restoration of game populations is annually conducted through the trapping of deer, turkey and quail. Much of the work of this trapping is done by wildlife officers under the supervision and direction of game biologists. The Monarch Refuge in Sumter County was recently acquired as a ready source of

turkeys, and will be trapped this Spring; game taken in this program will be released on areas open to public hunting.

In order to more economically maintain the numerous boats and equipment, a carpenter shop is located at Williston where repairs for several divisions are made. All of the many traps needed on the trapping program are produced here.

At the close of 1953, the Central Florida Division had eight Junior Conservation Clubs, six of which were active and recognized by the Junior Conservation League as paid up and active members. Two clubs were inactive.

In 1954, the Information and Education Officers organized new clubs, dissolved some inactive clubs, to end the year with sixteen clubs—thirteen active, three inactive.



Kill Comparison for the Central Florida Division Management Areas

| Area               | Deer |      | Turkey |      | Squirrel |       | Duck |      |
|--------------------|------|------|--------|------|----------|-------|------|------|
|                    | 1952 | 1954 | 1952   | 1954 | 1952     | 1954  | 1952 | 1954 |
| Ocala .....        | 501  | 593  | ..     | 12   | 2408     | 2877  | 53   | 141  |
| Gulf Hammock ..... | 64   | 120  | 115    | 55   | 3511     | 5191  | 439  | 741  |
| Sumter .....       | 2    | 3    | 12     | 74   | 1674     | 5866  | ..   | 501  |
| Farmton .....      | 37   | 61   | 85     | 58   | 645      | 736   | ..   | 29   |
| Tomoka .....       | 29   | 19   | 16     | 32   | 109      | 150   | ..   | 2    |
| Richloam .....     | ..   | 17   | ..     | 38   | ..       | 2660  | ..   | 55   |
| Total .....        | 633  | 813  | 228    | 269  | 8347     | 17480 | 492  | 1469 |



**T**HE EVERGLADES DIVISION, which is in the lower end of Florida, seems to be in the upper esteem of tourists, hunters and fishermen. Within this vast expanse of land and water there is a great variety of romance and mystery—and plenty of game and fish.

Recently the Corkscrew Cypress Swamp was saved for posterity, both human and animal, by donations of various organizations throughout the state.

The Everglades Division contains approximately 12,000 square miles of land area and more than 2,000 square miles of water area. Lake Okeechobee alone measures 730 square miles. The counties which come under the attention of this division are Indian River, St. Lucie, Martin, Okeechobee, Hendry, Collier, Palm Beach, Broward, Dade and Monroe.

There are three managed hunt areas: Collier County Hunt, Hendry County Hunt and the J. W. Corbett Area. The hunters were able to bag by areas the following game (a current figure on total kills for 1953 and up to December 26, 1954):

|                   | Collier | Hendry | J. W. Corbett | Total |
|-------------------|---------|--------|---------------|-------|
| Turkey .....      | 425     | 602    | 0             | 1027  |
| Deer .....        | 103     | 55     | 81            | 239   |
| Quail .....       | 2093    | 414    | 742           | 3249  |
| Squirrel .....    | 487     | 495    | 9             | 991   |
| Dove (1954) ..... | 146     | 4      | 37            | 187   |
| Duck .....        | 33      | 71     | 40            | 144   |
| Bear .....        | 3       | 0      | 0             | 3     |
| Snipe .....       | 0       | 34     | 4             | 38    |
| Hogs .....        | 0       | 0      | 131           | 131   |
| Bobcats .....     | 0       | 0      | 5             | 5     |

These figures show what a hunting paradise is open to sportsmen interested enough to track and bag game animals.

The practice of restocking these areas every year to replenish the land for future hunts will be started soon.

To help answer many questions regarding seasons, bag limits, total kill, hunter success and how to increase the supply of game on the management areas the technicians of game management division and the wildlife officers have been collecting information on the sex and age of turkeys, age of deer killed and also the stomach contents to determine their food habits. From these facts it is determined which is

radic fish kills which occur for various known reasons—the stress is being placed now on the renovation of ponds and lakes.

The various methods of handling rough fish control have been used on the canals and lakes of this division (the use of nets, seines and rotenone extermination), but the most fascinating experiment being tried out in this division is the use of an electrical fish shocker. It is to be stressed that this experiment is now in a stage requiring more time and funds to continue. A selective process of killing rough fish and keeping game fish alive is the goal.

The electrical fish shocker has been installed on a boat which cruises canals and is also used in a

lic cooperation in this division was the coordination of efforts by the members of the Angler's Club of Broward County in aiding, financially, with personal labor and use of boats, our fish management technicians and biologists to do a tremendous job of eliminating rough fish from the Andytown Canal. This project received nationwide attention.

The cooperation of the Hyacinth Control Division in our area is highly appreciated. This problem is growing daily, but with the proper backing of sportsmen's clubs who help finance part of this project we feel that some headway is being made.

The Everglades Division operates with a personnel of the director, secretary, fish management technician, education officer, airplane pilot, three area supervisors, and twenty-one law enforcement officers. Operating with the division are four wildlife biologists and one trapper.

Each wildlife officer has 619 square miles of area to patrol.

To summarize the activities of these competent men. In the years 1953-1954 they traveled 799,923 miles in vehicles; made 1,098 arrests; checked 59,702 licenses; spent 158,786 hours on land patrol, 8,739 hours on water patrol and 1,650 hours in air patrol plus some 1,000 hours added on land and water patrol for the pilot; hours in court, 1,453; number of public speeches made, 23; 1,554 hours in meetings; 14,703 hours on game management; 1,033 hours in fish management; talked to 29,991 people regarding conservation; contacted 846 informers; spent 584 hours rendering community service; investigated 887 complaints and alleged violations; sold 982 commercial licenses; spent 572 hours on professional improvement; sold 231 Florida Wildlife subscriptions; spent 865 hours on maintenance of equipment; 989 hours on fairs and demonstrations; rendered assistance to 3,336 people; seized 6 nets, 16,026 illegal traps and spent 8,152 hours on miscellaneous activities.

Closely coordinating the activities of the 29 radio equipped vehicles the radio communication system has been worked to advantage. We now have radio transmitters in Miami, Okeechobee and Immokalee with headquarters at the Okeechobee County court house.

The Information and Education Officer has the responsibility of obtaining and relating to the public pertinent facts regarding conservation through newspaper releases, scheduled speeches before civic and sportsmen's clubs, appearances on

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## The Everglades Division Reports:

FRED STANBERRY

Division Director

the best way to increase the supply of game.

Development activities on the management areas include posting boundaries, maintaining checking stations, erecting 4' x 4' signs along public roads. Eleven miles of old logging road was reconditioned, 33 bridges and a railroad crossing were constructed. Fifteen acres of food plots were plowed and planted in seed producing grasses. A 20' x 40' equipment shed was constructed on the J. W. Corbett Management Area. Ten turkey feeders have been maintained to help supplement the supply of native food.

In our Fish Management Program—in addition to the important function of stocking fish in lakes and ponds plus advice to owners on weed control and the explanation of spo-

stationary concrete tank especially built for experimental purposes at the Lake Okeechobee fish hatchery.

Recently, major electrical modifications of the fish shocker were completed. A control console was constructed which contains two transformers—one of which is variable—four selenium rectifiers and various switches and meters. A 5 KW generator is installed on the boat. A portable 3 KW generator on a loan basis was used in the permanent concrete tank.

There is a growing increase of calls coming into this division office for technical advice on fish survival and stock requests commensurate with the increase in population and added interest by people in maintaining managed lakes and ponds.

One of the finest examples of pub-



## *The South Florida Division*

**T**HE SOUTH Florida Division extends from Hernando County on the north to Hendry County on the south, and from the west coast, east to the Kissimmee River. The Wildlife Officers, Game and Fish Technicians, and other personnel in the counties thus included are charged with the responsibility of bringing closer to the sportsmen the rules, regulations, activities, and problems of the Commission.

Notable progress has been made during the past biennium.

From two small offices in the basement of Lakeland's Mayhall Auditorium, our headquarters have been moved to the building formerly housing the Highway Patrol at the

municipal airport. The new headquarters include the Hyacinth Control group and the Communications center for the southern half of the state. With a Division Director, Area Supervisors, Wildlife Officers, Game, Fish, and Radio Technicians, a Pilot, and an Information and Education Officer, the division offers a well rounded conservation program for the entire area.

Law enforcement has been coordinated more efficiently through the use of newer and more powerful two-way radio units. We now have increased the number of mobile units to about thirty-five and the number of base stations to three. All officers are able to receive messages and in-

structions in a fraction of the time formerly required. This coordination is aided greatly by the use of a radio equipped airplane recently supplied with floats for landing on water. Within two weeks after the floats had been installed, George Langford, the pilot, located four illegal gill nets and assisted in their confiscation.

Communications and law enforcement are not the only duties of this flying wildlife officer. He also has assisted in locating illegal liquor stills for the State Beverage Department and sheriffs' offices, looking for lost and drowned persons, escaped convicts, forest fires, and sources of stream pollution. He has located a



total of seven nets from the air, and participated in about fifty arrests while doing land patrol. He piloted a plane used for waterfowl inventories, flew a total of 1,729 hours and drove about 20,000 miles on land patrol.

Other Wildlife Officers made a total of 1,191 arrests during 1953 and 1954, traveling a total of 1,053,258 miles. During this period, they checked 74,532 hunting and fishing licenses, spent 144,721 hours on land patrol, 4,461 hours on water patrol, and 6,239 hours assisting technicians with game and fish management problems. The officers estimated that they had talked to 45,518 persons regarding conservation matters, and had given 72 public speeches. They picked up 23 nets and 212 traps which were being used illegally, and sold 631 commercial licenses. Besides spending 4,575 hours assisting at fair exhibits, the men spent considerable time in court, at meetings, doing office work, and maintaining their equipment. Never has the sportsman received so large a dividend for so small an investment as a hunting or fishing license.

Within the boundaries of the division there are four Public Hunting Wildlife Management Areas, located at Fisheating Creek, Avon Park, Lee County, and Charlotte County. These are a part of the Game Management activities that include quail trapping and experimental restocking, turkey restocking, dove and waterfowl bandings and studies, and further work regarding the possibility of increasing quail food by introducing newer plants or feeders.

The Information and Education officer has been responsible for contacting the various newspapers and radio stations, schools and civic organizations and groups within the division, giving them news releases, accurate and informative speeches, films, etc. Approximately 20,000 pamphlets were distributed to interested people along with the showing of 200 movies or speeches. In an effort to reach the youth of the state in conservation matters, 11 Junior Conservation Clubs were organized. Some of these youths assisted with the 28 fair exhibits put on by the division.

## Reports:

**E. T. HEINEN**  
**Division Director**

Besides the above activities of regular wildlife officers, law enforcement has been strengthened by the issuance of Honorary and Deputy Wildlife Officer Commissions. Technicians within the division have also assisted the officers by participating in arrests and investigations.

Fish technicians for the division checked 231 lakes and ponds that totaled 8,058 acres of water. Of these, 46 ponds were completely renovated by total poisoning and restocking, and 86 were stocked using a total of 65,464 bluegills and shell-crackers, and 62,468 largemouth bass. There were also 13 fish kills investigated.

Since the start of the state-wide Hyacinth Control Project, 49 lakes have been sprayed within the division. Lower operational costs since the moving of the Central Office to Lakeland have allowed a larger proportion of the Hyacinth Control budget to be spent on actual weed eradication.

It is hoped that progress of the past two years will continue. The South Florida Division recognizes and promotes the cycle of better hunting and fishing, thus increasing the number of license sales, making more funds available to promote still better hunting and fishing.

# Youth CONSERVATION EDUCATION PROGRAM

DENVER STE. CLAIRE

Executive Secretary

**T**HE YOUTH Conservation Education Program of the Information and Education Division has progressed in the past three years to a degree where it now ranks with other states leading the nation in youth conservation education.

In presenting such a program to the youth of Florida, fivefold concepts have been considered. They are:

1. To train our youth toward a better understanding of conservation of natural resources.
2. To instill in the minds of our youth a greater appreciation of the out-of-doors and to recognize the need of protecting and improving the State's outdoor areas.
3. To teach them the wise use and planned maintenance of our soils and waters.
4. To guide them in the sound use and intelligent management of our fish and wildlife.
5. To help them foster the proper utilization and systematic perpetuation of our forests.

These fivefold concepts are the basis of the promotion of the Junior Conservation Club Program. In directing this program, it has been necessary to employ various methods to capture and to sustain the interest and cooperation of our youth. Two most important factors contributing to the success of the Youth Education Program have been the creation of

the *Youth Conservation Club League Program* and the development of the *State Junior Conservation Camp*.

The formation of the Junior Conservation Club League was to bring together the youthful conservationists found within the individual clubs so that their efforts could be channeled and directed to attain a more coordinated program. The League now contains 45 active clubs with approximately 1,500 members located in the various communities within the State of Florida. This program includes boys and girls between their eighth and eighteenth birthdays.

The League is governed by their own elected delegates, who are chosen by the clubs and sent to the annual Summer Conference held each year at the annual Junior Conservation Camp. The delegates during their conference elect their officers for one year. These officers constitute a Board of Directors who work in conjunction with the Game and Fresh Water Fish Commission's Executive Secretary.

The Board convenes for three quarterly meetings plus the annual conference meeting. At the quarterly meetings, the Board passes on the planning and programming of projects and activities presented by the Executive Secretary. These approved projects are distributed to the clubs within the League. All of this material is created, prepared, edited and

disseminated from the Executive Secretary's office in Williston, Fla.

The projects are designed for self-improvement and individual and group activities relative to the conservation of our natural resources. A few of the suggested activities that these clubs participate in are these:

1. Wildlife, Fish, Forest, Soil and Water Conservation.
2. Actual camping experiences.
3. Studying the causes and cures of stream, river and lake pollution.
4. Taking an active interest in forest fire prevention.
5. Identifying birds quickly and accurately.
6. Being able to identify all wild animals, reptiles, and amphibians on sight.
7. Gaining first-hand knowledge of shooting firearms straight, safely and successfully.
8. Recognizing the importance of taking proper care of your shotgun, pistol, revolver, rifle, or even your BB gun.
9. Learning the best accepted methods of keeping your rod and reel in tip-top shape at all times.
10. Learning above all what causes have made the immediate conservation of our wildlife, our waters, our forests and lands so imperative.
11. Studying the modern methods

now being employed in controlling hyacinths in our lakes and rivers.

12. Taking an active interest in the state's present quail feeding, trapping and restocking programs, and similar plans.

A merit point system is being introduced this year for the purpose of defining a more constructive conservation program. Points awarded for self-improvement, individual and group activities are variable and depend upon the complexity of the project involved. Accumulation of points will determine the eligibility of the club members for camp entrance. The use of this system will also determine the awarding of badges and achievement awards. Tabulation of these merit points will also assist the Executive Secretary in selecting the outstanding Junior Conservationist of the year.

The second factor contributing to the advancement of the Youth Education program has been the development of the State Junior Conservation Camp. The creation and development of the camp has been one of the main objectives of the Game and Fresh Water Fish Commission. The purpose of the Camp is to assemble the representatives from the various youth clubs for the mutual exchange of ideas which will help to foster and advance the State's program of conservation.

The annual encampment brings together the youth of Florida interested in conservation and helps create in them the spirit of good comradeship for recreating and enjoying the pleasures of nature. By being in direct contact with nature, they are in a position to enjoy a greater appreciation of Florida's great outdoors with its fish and wildlife.

The first encampment was held for one week in 1952 with 37 youngsters representing 25 clubs as guests of the Game Commission at Camp Rotary, Auburndale, Florida. The second annual camp was held in the same place and was conducted for three weeks with 196 boys participating. The fee for this camp was \$5.00 per person. Both of these camps were leased.

In 1954, final plans for a campsite in the heart of the Ocala National Forest were drafted. Arrangements were made with the U. S. Forestry Service for a long-term lease on 57 acres at Lake Eaton. The third annual camp was held at the new site on 5 acres that had been cleared for temporary installation. A new road, 1.2 miles long, was completed from Salt Springs Highway No. 314 into the new camp site. A power line was

Tomorrow's hunters and fishermen . . . will they be conservation-minded? Will they help protect our game? Will they observe conservation laws and conservation practices? In this report, an outline of how we are meeting our obligations to our youth . . .

installed and a well dug. A sanitation building, 18' x 24', was constructed, as well as a sewage septic disposal system. A dock, 100' x 6', was erected for the youthful swimmers and divers. An area was cleared for use as an athletic field. Temporary installations were used for the young campers. Mess and sleeping quarters were under canvas.

The camp was conducted for four weeks during the month of July and registered, during that time, 240 junior conservationists. The fee for this encampment was \$7.50 per person.

The program for each week's camp includes a combination of fun and learning. Individual and group competitive contests in sports are a part of the recreation program which also includes swimming, boating, fishing, hiking, and camping. The young camper also has an opportunity of hearing specialists from Federal and State Agencies speak on various subjects in the field of conservation. These subjects include Game and Fish Management, Hyacinth Control, Law Enforcement, Information and Education, Administration, Safety and Use of Firearms, Outboard Motors, Boating, Soil Conservation, Fish and Wildlife, Forestry, Skishing, Fly Rod Casting, Archery, Indian Lore, Reptiles, Bird Study, Water Pollution, Life Saving, Radio Communications, Seminole Indians, etc.

The camp is supervised by the Information and Education Division with an Information and Education Officer (Executive Secretary) serving as Director, while the Division Information and Education Officers serve as counselors. A paid cook plans and prepares scientifically balanced meals. Students majoring in Physical Education at various universities are employed as assistant counselors, whenever needed.

Plans are now being processed for the construction of a Mess Hall, 100' x 48'. Construction of cabins, 16' x 16', is also included for future encampments. Improvement of the shore line is planned for 1955. Creation of a gentle-sloped sand beach will improve conditions for swimming and boating. Other future plans include the development of an ath-

*(Continued on Page 49)*



Lynn Ward and companions fishing in the famed Oklawaha River. The flyrod Lynn is using was awarded to him in recognition of his accomplishments which resulted in his winning the title of "Best Camper" at the State Junior Conservation Camp.



A good catch at the State Junior Conservation Camp at Ocala National Forest.

# Florida WILDLIFE



**BILL HANSEN**  
Editor

**T**HE FLORIDA Game and Fresh Water Fish Commission, along with a majority of the wildlife management organizations of the other states, recognized, several years ago, the importance of strong public backing in the successful conduct of a progressive fish and game conservation program. In order to obtain this all important public support, it

is apparent that the people must be kept informed regarding current programs, the reasons for their inception, the details of the operation, their aims and objectives, and the results attained. To this end, the Game and Fresh Water Fish Commission, in 1947, began the publication of a monthly magazine, FLORIDA WILDLIFE.

During the past six months, FLORIDA WILDLIFE has become one of the most popular magazines of its kind in the country. The ever increasing number of paid subscriptions being received from all 48 states and from several foreign countries bears out this contention.

This is the result of a reorganization plan that started in September





## The Florida Magazine for all Sportsmen...

1953. At that time, the editorial and managing offices were returned to Tallahassee from Leesburg.

This was done as an efficiency move and for the next several months, the magazine staff concentrated on the assembling of files, working out a proper mailing system, revamping the photographic department, and other such details as required for the operation of a standard monthly publication.

Early in 1954, the assignment of a new editorial staff was considered and the general policies and objectives of an official organ such as **FLORIDA WILDLIFE** were reviewed. By July, the reorganization of the magazine staff was completed with a total of five employees handling all editorial work, mailing, circulation, advertising, photography, and promotional activities necessary for a scheduled publication.

Soon after this reorganization, the duties of Information and Education, Fairs and Exhibits, and the Wildlife Trailer were turned over to the magazine section.

The preparation of such a publication as **FLORIDA WILDLIFE** is considered a standard and important function of any official organization striving to be of service to the public.

To this end, the Game and Fresh Water Fish Commission designated **FLORIDA WILDLIFE** as its official

and primary medium of disseminating information regarding conservation in general and Florida's activities in this field in particular.

The editorial policy was set forth as follows: To present to the people of Florida, especially the sportsmen, selected material of a technical and factual nature regarding conservation activities plus general hunting and fishing articles with the objective of promoting better hunting and fishing practices.

In return for this service, the state receives the support and cooperation of the sporting public. This cooperation means the successful enforcement of regulations and promotion of good conservation practices so vital to Florida and to the Game and Fresh Water Fish Commission.

By September 1954, the physical results of this reorganization became apparent. The editorial contents improved to the extent that **FLORIDA WILDLIFE** was beginning to receive national acclaim and no less than a dozen requests for permission to reprint articles appearing in **FLORIDA WILDLIFE** have been received to date.

By the end of October, the amount of monthly monies received from subscriptions all but tripled. Prior to this, the average monthly income from subscriptions was around \$1200 to \$1400. During November 1954, a

total of \$3410.88 was received. December marked an all time high of \$3951.88 and the first month of 1955 indicated a continued expansion when \$3886.54 was received.

During 1954, **FLORIDA WILDLIFE** experienced a general increase of paid circulation of approximately 5,000. The major part of this gain occurred during the latter months of 1954 and is above and beyond those subscriptions considered renewals and replacements of expirations.

In 1953, while the magazine was being published from offices in Leesburg, a drastic decline in circulation was experienced. The number of paid subscriptions dropped to a low of slightly more than 12,000 during early 1954. Soon after this an improved editorial policy was established, with a magazine that more nearly approached the original plan for the publication resulting.

The number of subscriptions received began to rise each month, with October 1954 showing a notable increase which has continued since that time. This situation bears out the contention that the general sporting public finds highly acceptable an educational and informative publication such as the new **FLORIDA WILDLIFE** and will gladly pay for it.

During 1954, the soliciting of advertising as a means of defraying the expense of publishing **FLORIDA WILDLIFE** was not emphasized. One reason for lack of activity in this phase of the work was the amount of time consumed by preparation of contents, photography, circulation, publishing schedules, and the added responsibilities imposed by the handling of certain I & E functions.

Another important reason for this was due to the embarrassing advertising situation suffered by **FLORIDA WILDLIFE** while the magazine was being commercially published in Leesburg. It was during this time that more than \$7,000 worth of advertising was branded unauthorized or sold through misrepresentation. Recent auditor's reports and newspaper comments would make it appear that this situation exists at the present time, which is not the case. Actually, the latest auditor's report concerning advertising accounts that have been stricken from the records concerns accounts contracted prior to August 1953. Advertising is, and will continue to be, included in the publishing program of **FLORIDA WILDLIFE**, but only that obtained through recognized and reputable agents and not at any direct expense to the Commission, except for standard commissions paid advertising agents.

# LAW ENFORCEMENT

**E. B. JONES**  
**Director**

**V**IGOROUS Law Enforcement has always proven to be essential to the proper operation of a good wildlife conservation program. So long as it is necessary to have game and fish laws, so long will it be necessary to see that such laws are properly enforced.

Florida's Wildlife Officers have the gigantic task of enforcing game and fish laws applying to approximately 39,000,000 acres of land and water within the confines of the State of Florida. With the second largest woodland area in the United States, over 30,000 named freshwater lakes, countless rivers and streams, and 58,560 square miles of territory to patrol, the Wildlife Officers are faced with a task that is all-important and never-ending.

While in the field, the Law Enforcement Officer represents the authority, the responsibility and the potentialities of the entire Florida Game and Fresh Water Fish Commission. To the average fisherman and hunter, who has no other contact with the Commission, the Wildlife Officer *IS* the Florida Game and Fresh Water Fish Commission.

It is vitally important, therefore, that our Wildlife Officers be men of

good character and excellent qualifications. Wildlife Officers must be thoroughly trained in all techniques of good law enforcement. It is important that they have both good character and educational background. They must have the physical stamina necessary to a lifetime of rugged work in the outdoors under difficult conditions. Wildlife Officers must have a thorough knowledge of all current official game and fish management practices. They must have the mental attributes necessary to keep constantly abreast of the rapid advance in modern wildlife conservation principles. They must, above all, be ever courteous in all matters relating to the sportsmen and the general public of Florida.

It takes many qualifications to make a good Wildlife Officer. Therefore, it is necessary that all Wildlife Officers pass a strict mental, physical and character examination before being employed by the Commission.

During the past biennium an average staff of 185 Wildlife Officers has been employed by the Commission. This average number may, at times, fluctuate slightly according to the

current needs of an aggressive and efficient Law Enforcement program.

One of the important aspects of the Law Enforcement branch is that it is subdivided geographically, corresponding to the present five administrative Divisions of the Commission. A force of Wildlife Officers is therefore headed by several Area Supervisors in each Division.

With few exceptions, the job of a Wildlife Officer is similar in all Divisions of the Commission. With good automotive equipment, boats, motors, and radio communications, Wildlife Officers effectively cover the entire state insofar as is humanly practicable under the present budgetary requirements.

When it is realized that the average Wildlife Officer must patrol almost a quarter of a million acres in order to effect a state-wide coverage by the Law Enforcement personnel, it is evident that the task is not an easy one.

But Law Enforcement is not the Wildlife Officer's only duty. The Wildlife Officer is also expected to serve or assist in game and fish management work, community service, special investigations, and public ap-

*(Continued on Page 50)*



**A wildlife officer checks hunting license.**

**RHETT McMILLIAN**

**Chief of  
Communications**



# COMMUNICATIONS

**T**HE COMMUNICATIONS Section was set up late in the year of 1948 to serve primarily as an aid to the Law Enforcement program. Beyond its primary purpose of serving as a tool for officers in the field, the radio system has since proved itself to be a valuable adjunct to the Commission's continuous efforts in achieving greater efficiency, with a consequent saving in both time and money.

Set up along experimental lines in 1948, the Communications System displayed such a great potentiality that it was given its own budget of \$18,560 to be used in developing an efficiently designed operating framework.

Now, the Communications Section not only serves as a law-enforcement tool, but also as an aid to greater flexibility in the over-all state-wide administrative functions.

The Radio Communications System of the Game and Fresh Water Fish Commission now has a total of 249 mobile units installed in Commission vehicles, and 20 base stations located in strategic areas throughout the State of Florida.

Base stations are now located at Crestview, Bonifay, Panama City, Blountstown, Tallahassee, Perry, Live Oak, Lake Butler, Jacksonville, San Mateo, Williston, Leesburg, Tomoka, Lakeland, Highland Hammock, Myakka, St. Cloud, Okeechobee, Immokalee and Miami.

In addition, one complete base station is on hand for proposed installation in the West Palm Beach area. Thus, the Commission has a total of 260 radio units representing, during the past bennium, an increase of 49 mobile units and eight fixed base stations.

Five radio engineers are employed by the Commission to install and maintain this equipment. This represents an addition of one engineer since 1952.

The headquarters of the Communications Section are located centrally in New Smyrna, and here are found the necessary operating tools of the far-flung radio system. Communications Headquarters keeps accurate cost records of each radio unit, operating manuals and signal cards which are prepared and furnished to Commission personnel,

and a stock of emergency parts and supplies maintained for the division of radio engineers.

Significantly, the Commission's Communications System has been selected by the Federal Civilian Defense Administration as a part of the Florida Air Raid Alert Warning System, as well as its administrative circuit, and is thus tied in with the national defense system.

Schools have been held over the state to instruct all Commission personnel in the exact duties they are to execute in the event of any natural or man-made disaster, and the entire system has participated successfully in simulated national alert tests.

With almost 100% of the Commission field personnel equipped with mobile radio units, the Communications System needs only two or three more base system installations to complete an almost perfect coverage picture.

The Communications System looks forward with anticipation to the coming biennium and the successful completion of the radio project.



# INFORMATION *and* Education

**ROBERT A. DAHNE**  
State Coordinator

**B**Y ITS NATURE, the Information and Education program carried on by the Florida Game and Fresh Water Fish Commission is both intricate and widely diversified.

In all, the Information and Education section is responsible for carrying on a total of 15 major inter-related programs that fall roughly into the five general classifications of Information, Education, Publicity, Public Relations and Internal Employee Training.

The 15 major programs that are carried on simultaneously are: Publications, Films and Film Libraries, News Releases, Fair Exhibits, Radio, Television, Newspapers, Photography, Public School Resource-Use Education, Lectures, Information Requests, Special Promotions, Organizations and Conventions, Junior Conservation Clubs and League, Employee Training Schools and Morale.

Each of these 15 major programs contains, of course, many minor and varied programs and projects.

In general, the Information and Education work is carried on two main levels: Out-of-State Information and Education, and Intra-State Information and Education. Of the two, the Intra-State work has always been considered the most important phase of the Commission's I & E work.

The Out-of-State I & E program is carried on solely through the state Coordinating office in Tallahassee. In its essence, the theme of any programs designed for out-of-state dissemination is to publicize the great potentialities of fishing and hunting in Florida. Much of this work is involuntary in that it is done at specific request from persons, concerns and states outside of Florida. An instance of this is shown in the fact that approximately 60

percent of all film requests received in the Master Film Library in the State Coordinating Office are from out-of-state. Informational requests received through the mails in the Tallahassee office are also mainly from interested sportsmen located outside of Florida.

The Out-of-State work continues to be necessary and desirable just so long as the national interest in Florida's fishing and hunting continues to grow so rapidly as the result of invaluable publicity received in countless national magazines, newspapers, books, television programs and motion pictures. The out-of-state work undoubtedly results in the arrival of many hundreds of out-of-state visitors and many prospective permanent residents.

The Intra-State work of the Information and Education section is considered to be of most vital interest to the Florida Game and Fresh



Water Fish Commission. This is because the primary duty and responsibility of the Game Commission is to the Florida citizens who purchase licenses to fish and hunt within the state.

It is the duty of the Information and Education section to inform and educate the sportsmen and citizens of Florida to the desirability of proper wildlife conservation in all its facets. The I & E section is primarily charged with the responsibility of informing and educating the general public as to the policies, the work programs, the game and fish laws and the management practices which are being set into motion by the Commission.

The I & E section is not, and has never been considered to be, a propaganda machine. Nor is it the "brain" of the Commission. It serves, instead, as the "tongue" of the Commission, giving voice, in all possible ways, to the official policies and practices of the Commission. In order to do its job, the I & E section is concerned only with the true facts concerning Florida wildlife and its proper conservation.

The quickest way to destroy the efficiency and power of the I & E section would be through any attempt at distortion or partial concealment of the truth. The section must always deal in whole and exact truths, or its efficacy will be totally lost. Nor is it the duty or the intent of the Information and Education section to in any way infringe upon or compete with established private staff or free-lance writers, editors and programists for newspapers, magazines, books and radio and television stations. Instead, it is the duty of the I & E section to cooperate with and assist in every possible way all such writers and editors.

In order to effect an efficient 15-point program on a state-wide basis, the Staff Officer known as the State Coordinator of Information and Education has the assistance, cooperation and advice of five Division Information and Education Officers. These Officers, located in each Division headquarters office of the Commission, are completely responsible for the proper conduct of complete information and education programs in the areas encompassed by the respective Divisions.

Under the Division administrative set-up, all state-wide informational or educational programs are organized and set into motion by the State Coordinating office. The programs are then carried out on a divisional, or local, basis by the

Division Officers.

Thus, when an official policy or operation is adopted by the Commission or its Director, the informational and educational aspects are organized and coordinated by the Tallahassee office through the Division offices.

The State Coordinating officer also has complete responsibility for all actions and programs carried on by the Executive Secretary of the Youth Conservation League, and the Fair Exhibit Trailer Manager.

A concise amplification of the 15 major programs of the Information and Education section is as follows:

### **PUBLICATIONS**

It is the duty of the State Coordinator of Information and Education to prepare, process, edit and publish numerous pamphlets, booklets and brochures, and distribute the completed works in the most effective manner. All such publications are officially published by the Game and Fresh Water Fish Commission. All out-of-state distribution of such publications is handled by the State Coordinating office. Intra-state distribution is handled by the respective Division Officers. During the past biennium, many widely-demanded standard Commission publications have been allowed to go out of print as the result of insufficient printing funds and exhausted stocks. It is hoped that through the use of mimeograph and printing, many of these standard publications, plus many new ones, will be available for distribution.

### **FILMS AND FILM LIBRARIES**

Under the Division administrative program, film libraries are available in each Division office for use within the respective divisions. A Master Film Library is also available in the State Coordinating Office. Under this system, all intra-state requests for wildlife film showings are handled from the Division offices, while out-of-state requests are handled from the Master Film Library. The State Coordinating Office also has the responsibility of preparing, editing and processing new motion picture films published by the Commission on official activities and programs, as well as films on Florida native wildlife.

### **NEWS RELEASES**

State-wide news releases are processed and distributed by the State Coordinating Office. Division-wide news releases are processed and distributed by the Division I & E Officers.

News releases are one of the most important programs carried on by the I & E section, for it is only through this medium that most newspapers, radio and television stations obtain authoritative information on Commission policies, programs and activities.

### **FAIR EXHIBITS**

The State Coordinating Office has responsibility for the scheduling and handling of exhibitions for the traveling educational wildlife trailer, which contains 22 cages and tanks of native wildlife. Originally constructed for display beginning October 1, 1952, the trailer has been viewed by many millions of people during the past biennium. It is exhibited at numerous county fairs, schools and communities throughout the State of Florida.

Many local fair exhibits are scheduled, constructed and exhibited through the initiative and resources of the respective Division I & E Officers.

### **RADIO**

The radio program known as "Florida Wildlife on the Air" was temporarily discontinued during the past biennium. It is hoped that this Commission-published tape-recorded program will be revived, in some form, during the next biennium, as an educational feature.

### **TELEVISION**

Almost all I & E work in the medium of television was performed by the Division Officers during the past biennium, through consultation between the Officers and local television programists. It is hoped that a more concrete television program can be initiated by the State Coordinating Office during the next biennium.

### **NEWSPAPERS**

Maintaining good relations with newspaper writers and editors throughout the state is always a continuing program of the I & E section. It is not the function of this section to compete, in any way, with newspaper writers and editors, but, rather, to assist them in obtaining immediate and accurate information on the Commission's policies and programs.

### **LECTURES**

All I & E Officers, as well as other employees of the Commission, are constantly available to address numerous organizations throughout the state regarding Commission programs and policies. Plans are now being made to set up a Master Lec-

*(Continued on Page 50)*



# Administration

**O. EARLE FRYE**  
Assistant Director

**T**HE FLORIDA Game and Fresh Water Fish Commission was created by a Constitutional Amendment passed at the general election of 1942, and becoming effective January 1, 1943. Under this amendment, there is vested in the Commission all regulatory and management authority for birds, game, fresh water fish, fur-bearing animals, reptiles and amphibians.

The Commission consists of five Commissioners—one of whom is appointed by the Governor from each of the five Congressional Districts of Florida that existed as of January 1, 1941.

The overall administration of the Game and Fresh Water Fish Commission is delegated by the Commission to a Director who is appointed by and serves at the pleasure of the five-man Commission.

Assisting the Director, and immediately under his supervision, are an Assistant Director, a Secretary to the Commission, personnel working on special assignments such as special investigators, and all Staff Officers.

Staff Officers of the Commission consist of the Business Manager, State Coordinators of Game, Fish and Information and Education, Chief of Communications, Magazine Editor and the five Division Directors.

The lines of Administrative authority are as depicted in the attached diagram. This diagram shows that the Director is immediately responsible to the Commission. All Heads of Departments, or Staff Officers, are, on the other hand, responsible to the Director. Departmental personnel are, of course, responsible to their Staff Officers.

Thus, when a policy is set by the Commission, it is administered by the Director through his Staff Officers and their personnel.

Under this arrangement, it is the Staff Officers' duty not only to attend to their particular administrative duties, but also to keep the Director, and through him the Commission itself, fully informed as to all important activities in all administrative branches.

Prior to 1951, all Game Commission programs were organized and put into effect from one state-wide office in Tallahassee. This resulted in a cumbersome procedure that resulted in a loss of vital contact with personnel working in the field, and the local problems with which they were constantly confronted. Staff Officers in the Tallahassee main office were often isolated, not only from their own personnel, but also from the sportsmen and general public of the State of Florida.

In an effort to overcome this operational handicap, the Administrative set-up was decentralized to attain closer contact with field problems and personnel.

To accomplish this, Game Commission Division offices were established in strategically located spots throughout the state. Five Divisions, and offices, were located in Northwest Florida, Northeast Florida, Central Florida, South Florida and Everglades Florida, with headquarters in Panama City, Jacksonville, Williston, Lakeland and Okeechobee.

Each Division was placed under a Division Director, responsible to the Commission's Director and Assistant Director. The Division Directors are directly responsible for all activities within the geographical area composing their Division. These include all work and personnel in law enforcement, communications, game and fish management, information and education, and budgetary matters.

In order to make this operation workable, all activities of a technical nature must be supervised jointly by the Division Director and the State coordinator or Staff Officer of the appropriate function.

Thus, the Division Director, and his personnel, are assisted, at the upper level, by various Staff Officers. All state-wide programs set into effect by the Commission are organized and coordinated, with the cooperation of the Division Directors and their personnel, by the State Coordinators. It is therefore possible to put any overall program into immediate effect in all points of

the state, with no discrepancies in policy or administration. A state-wide program is thereby operated exactly the same in every point of the state.

The close cooperation between the Director, the Assistant Director, the State Coordinators and the Division Officers is the most important item in the entire Administrative set-up.

Answerable to the various Staff Officers are additional sub-supervisory personnel. To the Business Manager is delegated responsibility for the State Property Officer, and Book-keeping and Auditing personnel. The Game and Fish Coordinators are responsible for the leaders of Federal and State-wide Projects, such as the hyacinth control program, controlled seining, deer and turkey restoration, and water fowl and mourning dove research and management projects. The Information and Education Coordinator is responsible for the Executive Secretary of the Junior Conservation Clubs and the Fair Exhibit Trailer Manager. Division Directors are responsible for division fish and game managers, division information and education officers, and area supervisors.

Each of these is, in turn, responsible for other personnel. For example, the Area Supervisor is responsible for law enforcement activities in from two to four counties in a Division, and is directly in charge of the activities of law enforcement personnel in such areas.

All of the lower level supervisory personnel actually participate in carrying out the work concerned. For example, Area Supervisors spend a great deal of their time in actual law enforcement as well as in supervision of law enforcement in their respective areas.

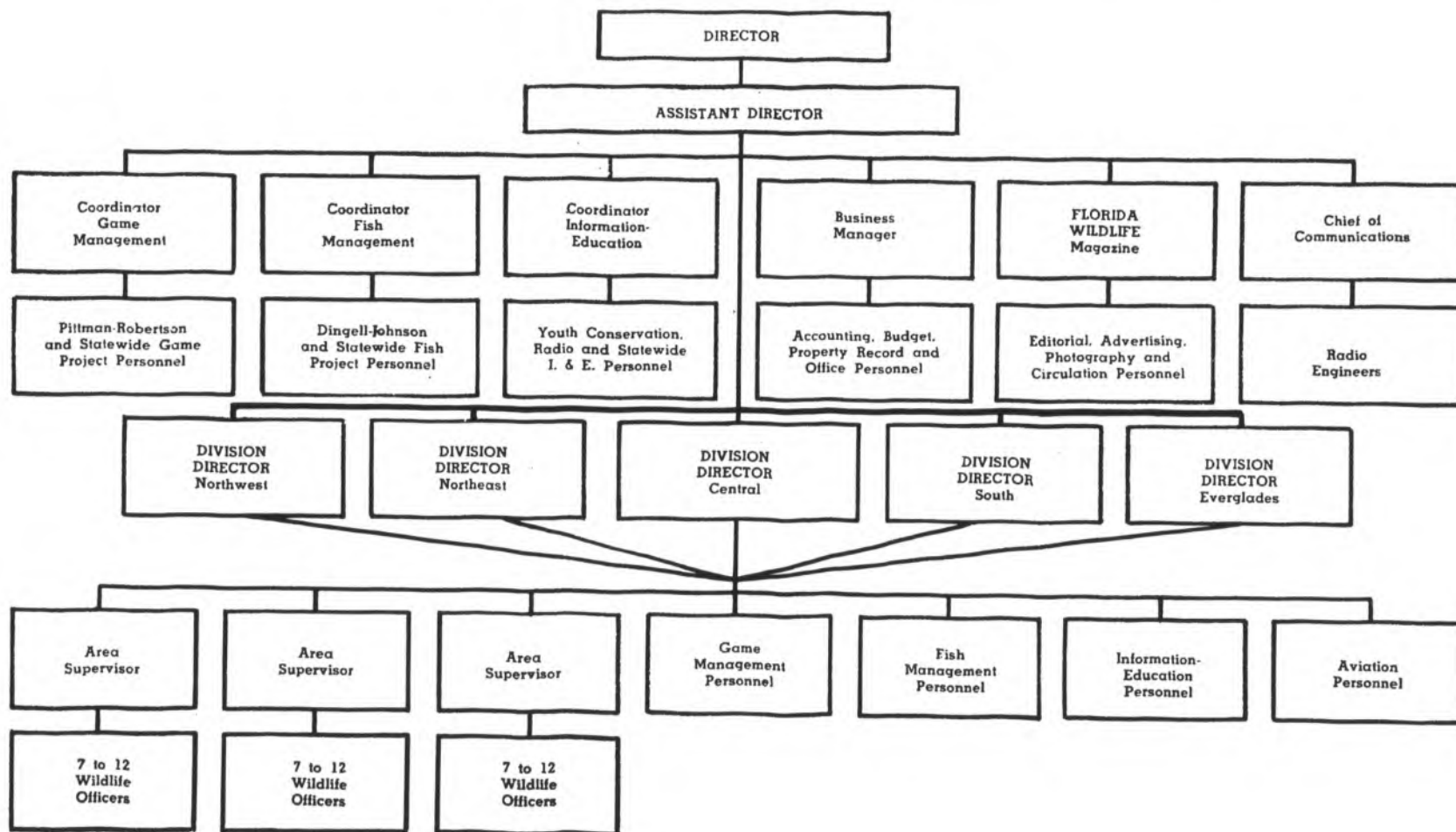
The degree to which any individual can participate in actual work depends, of course, upon the extent of his administrative duties. The farther up the administrative ladder he goes, the more he is occupied with administrative matters, and the less he is able to participate in the work he is supervising.

One of the most important duties  
(Continued on Page 40)

# FLORIDA GAME AND FRESH WATER FISH COMMISSION

## ADMINISTRATIVE SETUP

Five Commissioners—One appointed from each of five Congressional Districts  
by Governor under Constitutional Amendment



of the Director is the collection and assimilation of information from the various staff members for presentation to the Commissioners for use in evaluating and establishing overall policies of the Commission. It is the Director's very definite responsibility to keep the Commissioners fully informed as to activities in the various phases of Conservation endeavors, and as to public opinion regarding any specific issue. This can be accomplished by frequent personal contacts with individual Commissioners, and by means of periodic reports covering Commission activities.

By the use of such direct descending lines of authority and administration, and by the returning lines of responsibility, personnel welfare and public contact, it is possible to administer a complete and well-integrated program of wildlife conservation for the State of Florida.



**LEONARD A. WESSON**

The chairman of the Game and Fresh Water Fish Commission is Leonard A. (for Allison) Wesson of Tallahassee, former mayor of his home city, member and chairman of the Leon county school board, and a leading citizen of Florida for many years.

"It is my hope that while serving as a member of this Commission, it will be possible to eliminate the influence of pressure politics in its operation," said he as he was appointed to the Commission of which he became chairman January 19, 1955. He added: "It is my opinion that in the promotion of our conservation resources, education of the people toward the need for conser-

vation is our primary responsibility."

The chairman, born in Alabama, was brought to Ocala in 1909, attended grade and high school there and graduated from the University of Florida in 1924 with a degree in civil engineering. He later worked for the state road department, then joined the Coco-Cola Bottling Company, of which he is president.

He has served as a member of the Tallahassee city commission and as the mayor; has been a member and chairman of the county school board; and has taken a leading part in conservation over many years. He is a member of the Tallahassee Exchange Club and of Jackson Lodge No. 1, F. and A. M. He and Mrs. Wesson live in Tallahassee, with a son in the air force, a daughter married and living in Madison. **END.**



**RILEY GORDON GRANGER**

Mr. Granger was born October 24, 1898, in Loris, Horry County, South Carolina, son of Edmund Riley and Frances (Wilkins) Granger. His father was engaged in the turpentine industry and in farming operations.

Perhaps his outstanding achievement has been organization of what is now the State Forest Ranger School of the University of Florida. It was in January, 1947, that he assisted in organizing the Columbia Forestry School at Lake City. That

school was a non-profit corporation, and Mr. Granger was made president of the corporation. So successful was the new school that those responsible for its existence and continuance arranged for its transfer to the University of Florida as a part of the university system on July 1, 1949. Since that time it has operated as the State Forest Ranger School of the University of Florida.

Mr. Granger is also president of Granger Lumber Company, Inc. of Lake City; president of the G.B.S. Corporation of Lake City, a development enterprise; director of the Southern Pine Association of New Orleans, Louisiana; director of the Associated Industries of Florida, and also a director of the local Chamber of Commerce of Lake City and Columbia County. Mr. Granger was also formerly a director of the Perry Banking Company of Perry, Florida, from 1935 to 1940. From 1926 to 1934 he was a member of the Branford Town Council, and from 1932 to 1935 he was chairman of the board of trustees of Branford High School.

He is a member of the American Legion and the Veterans of Foreign Wars. He was cited in General Order No. 64 for "distinguished and exceptional gallantry in action" at Somme-Py, France, on October 8, 1918, and was awarded the Silver Star Medal. He is also entitled to wear the decorations of the French fourragere in the colors of the French Croix de Guerre.

Today Mr. Granger is active in fraternal circles as a member of the Free and Accepted Masons. He has held the different offices of his lodge, and has been district deputy grand master under two grand masters of the Grand Lodge of Florida. He is a member, too, of the Order of the Eastern Star, in which he has served as associate patron and worthy patron. He is also active in the Ancient Arabic Order of Nobles of the Mystic Shrine. In the Benevolent and Protective Order of Elks he is a leading worker. He belongs to the Lake City Shrine Club and other groups, and attends the Methodist Church, of which most members of his family are members.

Riley Gordon Granger married, August 14, 1922, in Perry, Florida, Merle Vansickel, daughter of Harry Ellsworth and Eva (Passmore) Vansickel. Mr. and Mrs. Granger are the parents of five children: Doris Lillian, 31; Dura Glenn, 30; Marjorie Ann, 25; Patsy Ruth, 23, and Riley Gordon, Jr., 19.



## B. BRACK CANTRELL

All of his mature life, B. Brack Cantrell of Okeechobee has been interested in the outdoors and in the sports of field and stream.

This began in Mississippi and followed through a long and successful business career. He was appointed commissioner for the fourth district January 17, 1955, and will be much in evidence at state conferences on conservation of wild life in the next few years.

Commissioner Cantrell was the owner and operator of a cattle ranch in Okeechobee county until 1952, when he began a semi-retirement which ended with his new interest in state game and fish protection. He is a native Smithville, Miss., served in World War I, was in the automobile and construction business in Birmingham until 1923, when he moved to Miami. In 1924 he was sales manager for the Ford agency in Hollywood, took another agency in Fort Lauderdale. He also began a sod and cattle business in 1937, selling his automobile interests in 1939 to devote full time to the others. His ranch venture started in 1948.

The commissioner has been a long-time member of the American Legion, helping to build a Legion home in Fort Lauderdale in 1936, when he was post commander, serving later on the district board and as district commander. He also took an active interest in the Shrine, the Elks and in soil conservation.

He is vice president of the Okeechobee County Cattle Association, but expects to devote most of his time to the work of the game and fresh water fish commission and its program of conservation.



## T. C. HART

More public land for hunting and continued support of conservation groups are objectives of Talmadge C. Hart, Wauchula cattleman and grower who was appointed to the Game and Fresh Water Fish Commission January 17, 1955, for a three-year term.

As Commissioner of District 1, Mr. Hart will assist junior conservation programs such as now exist in the Ocala National Forest and other forest and park areas, training and educating young people in sound management practices and in the conservation of wildlife and other natural resources. Also, as a means toward the end of better hunting and fishing, Mr. Hart will push the acquisition of land for hunting preserves for the public, and will expedite hyacinth control in the fresh water lakes and rivers of the state.

The District 1 commissioner finished his high school education in Avon Park in 1922 and then entered business with a large crate manufacturing company in his home town. He is a native of Paris, Tenn. In 1936, he started the T. C. Hart Lumber Company in Wauchula, and has operated it successfully ever since.

Also, in 1938, he began to operate cattle and citrus interests, with emphasis on the cattle side in purebred Brahman and Charollaise. With these and his lumber business, the commissioner also found time for many civic duties and the pursuit of his life-long hobby of conservation. He is now vice president and director of the Bradenton Production

Credit Association, a director of the Hardee County Cattlemen's Association, a member of the Farmers Home Administration Committee in Hardee county, and a deacon in the Baptist Church.

In 1932, Commissioner Hart married Mabel E. Johns of Wauchula. They have two daughters, Judith and Shirlene. The latter is expected to enter Florida State University next year as a freshman.



## M. G. ROWLETT

Another advocate of public hunting areas is Malcolm George Rowlett of Wildwood, appointed to the Game and Fresh Water Fish Commission for a five-year term on January 18, 1954. Commissioner Rowlett is of the opinion that unless the state moves now to acquire large areas for public hunting, the time will soon come when cattle, citrus and similar industries will take over Florida lands not otherwise closed to the public.

The commissioner has one hobby which takes rank over hunting or fishing. That is the completion of the Lake Eaton Camp for the Junior Conservation Club members. By putting such facilities to use among the growing boys of the area, he feels that they will be taught proper conservation and will be aids in the fight against game law violations.

Commissioner Rowlett was picked for this post because he had made a name for himself among sportsmen of Central Florida. For three recent



years he was president of the Sumter County Sportsmen's Association, was treasurer for one year and director for another. He also is an honorary member of the nearby Lake County Sportsmen's Association.

He is a native of Lakeland, where he graduated from high school in 1935. From then until 1940 he worked for the Atlantic Coast Line railroad, then transferred to the Seaboard and moved to Wildwood. He is a conductor and trainman.

In Sumter county he met and married Evelyn Smith of Center Hill. They have one son, Roddy.

Commissioner Rowlett has been a member of the Brotherhood of Railroad Trainmen since 1942, and president of Lodge No. 969 for two years.



**E. B. JONES**  
**Director**

E. B. ("Shorty") Jones was appointed Director of the Florida Game and Fresh Water Fish Commission September 10, 1954.

Jones, who has taken a deep personal interest in the success of the Commission's Youth Conservation Education Program, especially the Junior Conservation Club League and Camp operation, was born in Aucilla, Florida, May 17, 1919.

As Director, Jones freely pledged his support to any program or project that would improve the internal or external welfare of his Commission.

Serving his second term as Madison County Representative to the State Legislature in 1955, Jones is also a member of the Masons, Lions Club and the Baptist Church.

Residing in Greenville, Florida, Jones' family is composed of his wife, Eugenia Marie, two sons, Donnie, 11, and Jimmy, 7, and a girl, Rebecca, two and a half years old.

His former business affiliations included service station, cafe, theatre, insurance agency and others.

An indication of Mr. Jones' deep interest in youth education is evidenced in the fact that he once voluntarily appeared before 35 organizations in all parts of the state during a two-week period—speaking on the importance of the Youth Conservation Camp to the future of wildlife conservation in Florida. His one-man speaking campaign resulted in innumerable donations of material and money to the camp.

Jones voluntarily resigned as Director of the Commission on March 31, 1955, in order to assume his duties in the State Legislature as Madison County representative.

## **O. EARLE FRYE**

### **Assistant Director**

Credit for a good hunting season in Florida can be claimed by no special person or organization, since a lot of various items enter into such success, but a large part of the credit for organizing and putting into effect a progressive game management program—which definitely does have a bearing on future good hunting—can be placed on one man. He is O. Earle Frye, Jr., Assistant Director of the Game and Fresh Water Fish Commission.

It was during the years of 1947 and 1951, while Frye was serving as Chief Wildlife Biologist that a management program including the acquisition of public hunting rights on a tremendous acreage of private lands was inaugurated. The success of sportsmen in the fields and forests this past shooting season has ascertained that a good management program was instrumental in providing game for this top-notch outdoor sport this year.

Frye, who was born in Tennessee in 1917 and moved to Florida in 1925, first became interested in wildlife as a boy hunting and fishing near Winter Haven. He decided to make a career of conservation when a sophomore at the University of Florida, where he received a Bachelor's Degree in Biology in 1939, followed by a Master's Degree in 1941. He then spent one year of training in the Department of Wildlife Management in Agriculture and Mechanical College of Texas.

The Assistant Director enlisted in the U. S. Navy in June 1942 and became a naval aviator. His two years of sea duty were spent in anti-submarine warfare as a torpedo plane pilot aboard aircraft carriers in the North Atlantic. He held the rank of Lieutenant, Senior Grade and received the Air Medal with one Gold Star, and the Presidential Unit Citation before being released from active duty in January 1946.

After his Military service, Frye was employed by the Florida Game Commission to do research work on the bobwhite quail. In 1947 he became Chief Wildlife Biologist and spent the following four years in game management work. He was then appointed Assistant Director in 1951. He has written numerous technical and non-technical articles about wildlife and game management programs for many different publications.

He was appointed Acting Director of the Commission on March 31, 1955.



# *Accounting*

## THE FINANCIAL REPORT

JOEL McKINNON  
Administrative Assistant

**T**HE FISCAL Department of the Florida Game and Fresh Water Fish Commission has the responsibility of keeping records of all receipts and disbursements for the entire Commission. With the steady increase and expansion in the various Commission programs, the work of this Accounting Department has increased considerably.

During the fiscal year of 1946-47, the Commission took in total receipts of \$833,297.62. In 1947-48, this increased to \$1,024,616.59. The following year, 1948-49, the Commission collected \$1,124,927.79. In 1949-50, the steady increase of receipts continued to a final total of \$1,226,204.06. In 1950-51, receipts totaled \$1,207,657.87. In 1951-52, receipts were \$1,495,315.80.

During the biennial period covered by this report, receipts totaled \$1,958,025.20 in 1952-53, and \$1,878,-

498.39, for an average of \$1,918,266.79, per fiscal year.

Thus, in eight years, the yearly receipts of the Commission has increased well over one million dollars—from \$833,297.62 in 1946-47 to an average of \$1,918,266.79 for the biennial 1953-54 period.

Because of the Commission's financial operation, whereby all monies received are disbursed in improved conservation and law enforcement programs, the disbursements for the past eight-year period have increased proportionately to the increase of receipts.

Where, for instance, the Commission received a total of \$2,702,455.28 during the biennium 1951-52, it disbursed \$2,892,894.34 during the same period. During the biennium covered by this report, the Commission collected \$3,741,895.31, and disbursed \$3,658,326.76.

It is interesting to note that the receipts from Licenses Sold by County Judges has shown a steady increase for the past four years. A total of \$999,292.00 was collected from this source in 1950-51. In 1951-52, a total of \$1,078,908.00 was received. During the current biennium covered by this report, total receipts from Licenses Sold by County Judges was \$1,223,366.50 in 1952-53, and \$1,308,868.00 in 1953-54.

The following pages contain a complete statement of Commission receipts and expenditures for the fiscal years 1952-53 and 1953-54. We have also prepared a financial statement for the first six months of this fiscal year of 1954-55, in order to bring this report up to date since these reports are prepared on a fiscal-year basis rather than that of a calendar year.

# GAME AND FRESH WATER FISH COMMISSION

## Financial Statement—July 1, 1952 to December 31, 1954 Statement of Cash Receipts, Disbursements and Balances

|  | July 1, 1953<br>Item<br>Total | June 30, 1954<br>Source<br>Total | July 1, 1954<br>Item<br>Total | Dec. 31, 1954<br>Source<br>Total | Item<br>Total | Dec. 31, 1954<br>Source<br>Total |
|--|-------------------------------|----------------------------------|-------------------------------|----------------------------------|---------------|----------------------------------|
| <b>Receipts</b>                          |                               |                                  |                               |                                  |               |                                  |
| Beginning Cash Balance July 1, 1952      |                               | \$ 57,112.95                     |                               | \$ 94,583.86                     |               | \$ 128,925.09                    |
| License Sold by County Judges            | \$1,223,366.50                |                                  | \$1,308,868.00                |                                  | \$ 898,083.50 |                                  |
| License Sold by State Office             | 102,585.20                    |                                  | 110,211.30                    |                                  | 33,326.40     |                                  |
| Revenue from Other Governmental Agencies | 202,500.48                    |                                  | 225,710.44                    |                                  | 120,681.31    |                                  |
| Revenue from Use of Property             | 24,529.24                     |                                  | 68,604.35                     |                                  | 9,675.54      |                                  |
| Revenue from Publication Magazine        | 71,499.84                     |                                  | 31,543.96                     |                                  | 15,699.16     |                                  |
| Sale of Fixed Assets                     | 87,659.24                     |                                  | 19,867.07                     |                                  | 3,384.65      |                                  |
| Revenue from Other Sources               | 245,884.60                    |                                  | 19,064.99                     |                                  | 3,135.14      |                                  |
| Total Cash Receipts Schedule "A"         |                               | 1,958,025.20                     |                               | 1,783,870.11                     |               | 1,083,995.70                     |
| Cancelled and Restored Warrants          |                               |                                  |                               | 44.42                            |               | 20.00                            |
| County Judges Account                    |                               |                                  |                               |                                  |               | 48.75                            |
| Total Cash Available                     |                               | 2,015,138.15                     |                               | 1,878,498.39                     |               | 1,212,989.54                     |
| <b>Disbursements</b>                     |                               |                                  |                               |                                  |               |                                  |
| Salaries                                 | 1,011,893.19                  |                                  | 991,822.86                    |                                  | 528,251.10    |                                  |
| Repairs and Maintenance                  | 48,053.80                     |                                  | 58,082.11                     |                                  | 32,704.20     |                                  |
| General Printing and Reproduction        | 137,488.73                    |                                  | 88,96.38                      |                                  | 70,008.17     |                                  |
| Tel., Telegraph, Postage, Freight        | 32,353.58                     |                                  | 27,916.55                     |                                  | 16,435.85     |                                  |
| Travel                                   | 83,466.96                     |                                  | 74,842.56                     |                                  | 41,101.30     |                                  |
| Other Contractual Services               | 40,451.38                     |                                  | 42,695.23                     |                                  | 19,557.05     |                                  |
| Motor, Fuel and Lubricants               | 125,651.24                    |                                  | 130,678.43                    |                                  | 67,355.75     |                                  |
| Materials and Supplies                   | 85,125.31                     |                                  | 93,067.26                     |                                  | 51,906.04     |                                  |
| Insurance and Surety Bonds               | 61,230.87                     |                                  | 42,936.25                     |                                  | 201.06        |                                  |
| Motor Vehicles                           | 180,983.46                    |                                  | 98,611.02                     |                                  | 24,183.00     |                                  |
| Motor, Boats and Trailers                | 12,227.32                     |                                  | 4,701.50                      |                                  | 11,728.28     |                                  |
| Other Capital Outlay                     | 37,999.82                     |                                  | 50,825.35                     |                                  | 29,660.14     |                                  |
| Transfer to Federal Government           | 15,846.45                     |                                  | 17,051.10                     |                                  | 17,218.72     |                                  |
| Other Expenses                           | 36,275.34                     |                                  | 27,087.71                     |                                  | 7,542.41      |                                  |
| Total Disbursements Schedule "B"         |                               | 1,909,047.45                     |                               | 1,749,279.31                     |               | 917,853.07                       |
| Adjustment Account                       |                               | 11,280.75                        |                               | 26.75                            |               | 101.00                           |
| County Judges Account                    |                               | 226.09                           |                               | 267.24                           |               |                                  |
| Total Disbursements                      |                               | 1,920,554.29                     |                               | 1,749,573.30                     |               | 917,954.07                       |
| Ending Cash Balance June 30, 1953        |                               | \$ 94,583.86                     |                               | \$ 128,925.09                    |               | \$ 295,035.47                    |

### SCHEDULE "A" Receipts by Source

|   | July 1, 1952-June 30, 1953<br>1952-1953 |                | July 1, 1953-June 30, 1954<br>1953-1954 |                | July, 1954 to Dec. 31, 1954 |               |
|---|---|----------------|---|----------------|-----------------------------|---------------|
|   | Item Total                              | Source Total   | Item Total                              | Source Total   | Item Total                  | Source Total  |
| <b>SALE OF SPORTING LICENSES</b>                  |   |                |   |                |                             |               |
| Fishing   | 759,625.75                              |                | 777,748.00                              |                | 445,194.00                  |               |
| Hunting   | 463,065.75                              |                | 504,942.50                              |                | 412,822.00                  |               |
| Trapping  | 675.00                                  |                | 648.00                                  |                | 248.00                      |               |
| Alien Hunting                                     | 50.00                                   |                | 50.00                                   |                |                             |               |
| U. S. Permits                                     | 400.00                                  |                | 400.00                                  |                | 400.00                      |               |
| Charlotte County Permits                          | 2,189.00                                |                | 2,095.00                                |                | 70.00                       |               |
| Goose Permits                                     |   |                | 1,770.00                                |                | 2,577.00                    |               |
| State Hunting Permits                             | 64,875.00                               |                | 73,195.00                               |                | 31,210.00                   |               |
| State Archery Permits                             | 590.00                                  |                | 975.00                                  |                | 1,030.00                    |               |
| Total Sporting Licenses                           |   | \$1,291,470.50 |   | \$1,361,823.50 |                             | \$ 893,551.00 |
| <b>SALE OF COMMERCIAL LICENSES</b>                |   |                |   |                |                             |               |
| Retail Fish Dealer                                | 14,705.00                               |                | 11,960.00                               |                | 9,405.00                    |               |
| Non-Resident Retail Fish Dealer                   | 50.00                                   |                |   |                | 100.00                      |               |
| Wholesale Fish Dealer                             | 3,950.00                                |                | 2,250.00                                |                | 2,200.00                    |               |
| Non-Res. Wholesale Fish Dealer                    | 1,000.00                                |                | 1,500.00                                |                | 2,000.00                    |               |
| Commercial Boat                                   | 1,988.70                                |                | 1,751.30                                |                | 1,323.40                    |               |
| Non-Res. Commercial Boat                          | 10.00                                   |                |   |                |                             |               |
| Boat for Hire                                     | 11,680.00                               |                | 12,700.00                               |                | 12,401.00                   |               |
| Guide   | 330.00                                  |                | 420.00                                  |                | 400.00                      |               |
| Game Farm   | 500.00                                  |                | 765.00                                  |                | 585.00                      |               |
| Wholesale Fur Dealer and Agents                   | 250.00                                  |                | 255.00                                  |                | 630.00                      |               |
| Local Fur Dealer                                  | 70.00                                   |                | 80.00                                   |                | 100.00                      |               |
| License to Exhibit Poisonous or Venomous Reptiles |   |                | 45.00                                   |                | 75.00                       |               |
| Total Commercial Licenses                         |   | \$ 34,533.70   |   | \$ 31,726.30   |                             | \$ 29,219.40  |

SCHEDULE "A"  
OTHER SOURCES (Continued)

| OTHER SOURCES                                   |                |                |                |
|---|----------------|----------------|----------------|
| Court Costs Collected .....                     | 20,146.75      | 21,149.92      | 14,452.45      |
| Miscellaneous Receipts .....                    | 3,711.21       | 12,610.95      | 2,038.63       |
| Prev. Year's License Collected .....            | 31,317.00      | 25,529.50      | 39,829.50      |
| Sale of Magazine Advertising .....              | 35,730.51      | 8,706.97       | 2,794.79       |
| Sale of Magazine Subscription .....             | 34,132.25      | 21,740.28      | 12,674.70      |
| Sale of Magazine Single Copies .....            | 1,637.08       | 1,096.71       | 229.67         |
| Sale of Miscellaneous Literature .....          | 22.00          | 12.50          | .....          |
| Sale of Old Equipment .....                     | 87,659.24      | 19,867.07      | 1,237.50       |
| Sale of Confiscated Equipment .....             | 993.66         | 1,513.82       | 262.15         |
| Sale of Rough Fish .....                        | 854.30         | 1,350.31       | 149.56         |
| Sale of Timber .....                            | 1,557.69       | 2,420.34       | 946.95         |
| Sale of Land .....                              | .....          | .....          | 1,885.00       |
| Sale of Turkey and Quail .....                  | 82.00          | 740.00         | .....          |
| Sale of Radio Program .....                     | 21.30          | .....          | .....          |
| Fish Inspection Service .....                   | 207,325.44     | 417.07         | .....          |
| Dingell-Johnson .....                           | 41,993.39      | 57,385.42      | 19,939.34      |
| Pittman-Robertson .....                         | 140,360.44     | 147,175.10     | 55,079.52      |
| Palm Beach Oil Lease .....                      | 16,706.74      | 13,478.17      | .....          |
| Charlotte County Grazing Lease .....            | 7,822.50       | 9,615.33       | 9,675.54       |
| Charlotte County Oil Lease .....                | .....          | 45,510.85      | .....          |
| Prev. Year's Hunting Permits<br>Collected ..... | .....          | .....          | 25.00          |
| Prev. Year's Hunting Permits<br>Collected ..... | .....          | .....          | 5.00           |
| Total Other Sources .....                       | \$ 632,073.50  | \$ 390,320.31  | \$ 161,225.30  |
| TOTAL RECEIPTS .....                            | \$1,958,077.70 | \$1,783,870.11 | \$1,083,995.76 |
| Less Credit for Prior Year's Licenses .....     | 52.50          | .....          | .....          |
| Total Net Receipts .....                        | \$1,958,025.20 | .....          | .....          |

GAME AND FRESH WATER FISH COMMISSION FINANCIAL STATEMENT

|  | July 1, 1952-June 30, 1953<br>1952-1953<br>Total<br>Item | July 1, 1953-June 30, 1954<br>1953-1954<br>Total<br>Item | July 1, 1954 to Dec. 31, 1954<br>7-1-54 to 12-31-54<br>Total<br>Item |
|--|--|--|--|
| SCHEDULE "B"<br>Disbursements                                |  |  |  |
| Salaries .....   | 1,011,893.19   | 991,822.86   | 528,251.10   |
| Prof. Fees and Consulting Service .....                      | 187.00   | 1,589.30   | 296.00   |
| Advertising Florida's Commodities .....                      | .....  | 573.92   | .....  |
| Tel., Telegraph, Postage and Freight .....                   | 32,353.58  | 27,916.55  | 16,435.85  |
| General Printing .....                                       | 137,488.73   | 88,961.38  | 70,008.17  |
| Repairs and Maintenance .....                                | 48,053.80  | 58,082.11  | 32,704.20  |
| Travel .....   | 83,466.96  | 74,842.56  | 41,101.30  |
| Utilities .....  | 3,898.50   | 3,617.32   | 1,422.57   |
| Other Contractual Services .....                             | 40,451.38  | 42,695.23  | 19,557.05  |
| Bedding, Clothing, Linen and Other<br>Textile Products ..... | 505.75   | 1,153.24   | 1,561.93   |
| Bldg. Const. Mat. and Supplies .....                         | 6,627.19   | 7,255.80   | 4,080.57   |
| Coal, Fuel and Oil .....                                     | 591.68   | 244.77   | 69.79  |
| Ed., Med., Scient. and Agri. Mat. ....                       | 28,847.16  | 27,769.25  | 14,075.37  |
| Food Products .....  | 3,150.84   | 1,817.05   | 1,967.14   |
| Maintenance Materials and<br>Supplies .....                  | 32,519.76  | 38,253.10  | 19,014.51  |
| Motor Fuel and Lubricant .....                               | 125,651.24   | 130,678.43   | 67,355.75  |
| Office Material and Supplies .....                           | 6,095.09   | 7,472.01   | 3,417.75   |
| Other Material and Supplies .....                            | 14,006.71  | 19,572.90  | 7,788.77   |
| Insurance and Surety Bonds .....                             | 61,240.87  | 42,936.25  | 201.06   |
| Pensions and Benefits .....                                  | 50.00  | 600.00   | 300.00   |
| Rental of Bldg. and Equip. ....                              | 6,368.73   | 8,657.73   | 2,727.65   |
| Other Current Charges and Oblig. ....                        | 3,048.85   | 1,478.58   | 226.40   |
| Books .....  | 50.21  | 35.25  | 6.00   |
| Building and Fixed Equip. ....                               | 7,480.40   | 5,123.67   | 1,507.45   |
| Ed., Med., Scient. and Agri. Equip. ....                     | 1,617.60   | 1,873.73   | 6,719.57   |
| Motor Vehicles .....   | 180,983.46   | 98,611.02  | 24,183.00  |
| Motors, Boats and Trailers .....                             | 12,227.32  | 4,701.50   | 11,978.28  |
| Office Furniture and Equipment .....                         | 3,960.33   | 4,412.84   | 2,737.86   |
| Land .....   | 2,394.85   | .....  | .....  |
| Other Structures and Improvements .....                      | .....  | 620.00   | 460.40   |
| Other Capital Outlay .....                                   | 37,999.82  | 38,759.86  | 17,978.86  |
| Revolving Fund .....   | .....  | .....  | 2,500.00   |
| Dist. and Transfer to Other Funds ....                       | 15,846.45  | 17,051.10  | 17,218.72  |
| TOTAL .....  | \$1,909,047.45   | \$1,749,279.31   | \$ 917,853.07  |

| SCHEDULE "B"—Disbursements<br>by Departments | 1952-1953       |                     | 1953-1954       |                     | July to December, 1954 |                     |
|--|-----------------|---------------------|-----------------|---------------------|------------------------|---------------------|
|  | Budget<br>Total | Department<br>Total | Budget<br>Total | Department<br>Total | Budget<br>Total        | Department<br>Total |
| <b>ADMINISTRATION</b>                        |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | \$ 49,354.03    |                     | \$ 30,249.27    |                     | \$ 17,054.74           |                     |
| General Expense .....                        | 55,356.06       |                     | 56,487.82       |                     | 38,892.81              |                     |
| Capital Outlay .....                         | 8,413.31        | \$113,123.40        | 2,822.99        | \$89,566.08         | 603.77                 | \$56,551.32         |
| <b>FISCAL BRANCH</b>                         |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 17,245.20       |                     | 26,777.51       |                     | 13,454.76              |                     |
| General Expense .....                        | 1,192.11        |                     | 2,408.62        |                     | 418.62                 |                     |
| Capital Outlay .....                         | 297.93          | 18,735.24           | 660.72          | 29,846.85           | 648.35                 | 14,521.73           |
| <b>COMMUNICATIONS</b>                        |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 16,936.96       |                     | 17,754.00       |                     | 9,033.00               |                     |
| General Expense .....                        | 13,803.31       |                     | 14,666.23       |                     | 7,353.49               |                     |
| Capital Outlay .....                         | 28,440.06       | 59,180.33           | 27,946.43       | 60,366.66           | 18,183.40              | 34,569.89           |
| <b>INFORMATION AND EDUCATION</b>             |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 14,171.95       |                     | 9,491.73        |                     | 3,717.50               |                     |
| General Expense .....                        | 31,767.63       |                     | 14,623.41       |                     | 6,827.64               |                     |
| Capital Outlay .....                         | 10,260.41       | 56,199.99           | 207.50          | 24,322.64           | 684.17                 | 11,229.31           |
| <b>FAIR EXHIBIT</b>                          |                 |                     |                 |                     |                        |                     |
| Salaries .....                               |                 |                     | 3,005.60        |                     | 1,000.00               |                     |
| General Expense .....                        |                 |                     | 2,538.57        |                     | 3,378.03               |                     |
| Capital Outlay .....                         |                 |                     |                 | 5,544.17            |                        | 4,378.03            |
| <b>YOUTH PROGRAM</b>                         |                 |                     |                 |                     |                        |                     |
| Salaries .....                               |                 |                     | 5,244.00        |                     | 2,146.00               |                     |
| General Expense .....                        |                 |                     | 3,039.06        |                     | 3,075.10               |                     |
| Capital Outlay .....                         |                 |                     | 2,756.37        | 11,039.43           | 705.87                 | 5,926.97            |
| <b>MAGAZINE</b>                              |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 37,599.18       |                     | 19,865.04       |                     | 9,293.36               |                     |
| General Expense .....                        | 128,378.73      |                     | 76,369.05       |                     | 49,317.10              |                     |
| Capital Outlay .....                         | 4,009.61        | 169,987.52          | 237.57          | 96,471.66           | 155.19                 | 58,765.65           |
| <b>WORK SHOP</b>                             |                 |                     |                 |                     |                        |                     |
| Salaries .....                               |                 |                     | 1,663.20        |                     | 2,087.30               |                     |
| General Expense .....                        |                 |                     | 604.84          |                     | 482.98                 |                     |
| Capital Outlay .....                         |                 |                     | 417.64          | 2,685.68            |                        | 2,570.28            |
| <b>FISH MANAGEMENT ADMINISTRATION</b>        |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 4,270.00        |                     | 7,708.61        |                     | 4,030.50               |                     |
| General Expense .....                        | 2,664.97        |                     | 3,214.77        |                     | 1,027.95               |                     |
| Capital Outlay .....                         | 1,763.25        | 8,698.22            | 328.50          | 11,251.88           |                        | 5,058.45            |
| <b>DINGELL-JOHNSON</b>                       |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 37,964.77       |                     | 63,853.46       |                     | 40,936.35              |                     |
| General Expense .....                        | 19,559.94       |                     | 17,908.66       |                     | 15,713.01              |                     |
| Capital Outlay .....                         | 4,000.05        | 61,524.76           | 7,812.44        | 89,574.56           | 5,443.88               | 62,093.24           |
| <b>ROUGH FISH CONTROL</b>                    |                 |                     |                 |                     |                        |                     |
| General Expense .....                        | 2,960.47        | 2,960.47            |                 |                     |                        |                     |
| <b>LAKE FISHERIES EXPERIMENT STATION</b>     |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 17,076.49       |                     |                 |                     |                        |                     |
| General Expense .....                        | 3,341.82        |                     |                 |                     |                        |                     |
| Capital Outlay .....                         | 1,072.20        | 21,490.51           |                 |                     |                        |                     |
| <b>HYACINTH CONTROL</b>                      |                 |                     |                 |                     |                        |                     |
| Salaries .....                               |                 |                     | 24,988.29       |                     | 13,887.51              |                     |
| General Expense .....                        |                 |                     | 22,524.90       |                     | 12,755.49              |                     |
| Capital Outlay .....                         |                 |                     | 5,065.00        | 52,578.19           | 140.85                 | 26,783.85           |
| <b>LAKE OKEECHOBEE F/M STATION</b>           |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 29,682.39       |                     |                 |                     |                        |                     |
| General Expense .....                        | 7,292.28        |                     |                 |                     |                        |                     |
| Capital Outlay .....                         | 10,471.16       | 47,445.83           |                 |                     |                        |                     |

| SCHEDULE "B"—Disbursements<br>by Departments | 1952-1953       |                     | 1953-1954       |                     | July to December, 1954 |                     |
|--|-----------------|---------------------|-----------------|---------------------|------------------------|---------------------|
|  | Budget<br>Total | Department<br>Total | Budget<br>Total | Department<br>Total | Budget<br>Total        | Department<br>Total |
| ST. JOHNS F/M STATION                        |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 49,670.04       |                     |                 |                     |                        |                     |
| General Expense .....                        | 9,382.28        |                     |                 |                     |                        |                     |
| Capital Outlay .....                         | 4,806.36        | 63,858.68           |                 |                     |                        |                     |
| FISH SQUADRON                                |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 15,559.00       |                     |                 |                     |                        |                     |
| General Expense .....                        | 8,492.25        |                     |                 |                     |                        |                     |
| Capital Outlay .....                         | 2,840.02        | 26,891.27           |                 |                     |                        |                     |
| PITTMAN-ROBERTSON                            |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 96,586.68       |                     | 106,921.84      |                     | 57,611.56              |                     |
| General Expense .....                        | 69,100.60       |                     | 91,275.43       |                     | 42,116.91              |                     |
| Capital Outlay .....                         | 30,434.57       | 196,121.85          | 29,566.15       | 227,763.42          | 10,906.61              | 110,635.08          |
| NATIONAL FOREST HUNTS                        |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 599.76          |                     | 9,413.77        |                     | 3,244.41               |                     |
| General Expense .....                        | 21,262.23       |                     | 23,910.16       |                     | 18,208.74              |                     |
| Capital Outlay .....                         | 993.93          | 22,855.02           |                 | 33,323.93           |                        | 21,453.15           |
| STATE HUNTS                                  |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 28,555.40       |                     | 35,930.31       |                     | 12,010.29              |                     |
| General Expense .....                        | 4,019.41        |                     | 10,960.73       |                     | 4,153.44               |                     |
| Capital Outlay .....                         | 2,775.85        | 35,350.66           | 2,630.21        | 49,521.26           | 400.79                 | 16,564.52           |
| GENERAL GAME MANAGEMENT                      |                 |                     |                 |                     |                        |                     |
| Salaries .....                               |                 |                     |                 |                     | 1,738.50               |                     |
| General Expense .....                        |                 |                     | 627.33          |                     | 2,684.45               |                     |
| Capital Outlay .....                         |                 |                     |                 | 627.33              |                        | 4,422.95            |
| QUAIL HATCHERY                               |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 15,532.09       |                     | 11,490.78       |                     |                        |                     |
| General Expense .....                        | 13,381.55       |                     | 4,282.35        |                     |                        |                     |
| Capital Outlay .....                         | 1,531.85        | 30,445.49           |                 | 15,773.13           |                        |                     |
| SOUTH FLORIDA DIVISION                       |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 118,187.24      |                     | 117,856.52      |                     | 61,910.76              |                     |
| General Expense .....                        | 48,114.49       |                     | 48,471.11       |                     | 20,954.25              |                     |
| Capital Outlay .....                         | 35,009.03       | 201,310.76          | 13,258.53       | 179,586.16          | 5,238.23               | 88,103.24           |
| WINTER HAVEN HATCHERY                        |                 |                     |                 |                     |                        |                     |
| Salaries .....                               |                 |                     | 9,012.60        |                     | 4,623.60               |                     |
| General Expense .....                        |                 |                     | 2,765.17        |                     | 1,689.09               |                     |
| Capital Outlay .....                         |                 |                     | 1,910.00        | 13,687.77           |                        | 6,312.69            |
| NORTHEAST FLORIDA DIVISION                   |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 121,066.33      |                     | 135,630.33      |                     | 77,678.54              |                     |
| General Expense .....                        | 63,121.48       |                     | 61,813.97       |                     | 29,214.97              |                     |
| Capital Outlay .....                         | 22,200.03       | 206,387.84          | 18,083.80       | 215,528.10          | 1,816.81               | 108,710.32          |
| NORTHWEST FLORIDA DIVISION                   |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 126,737.12      |                     | 128,306.76      |                     | 67,961.41              |                     |
| General Expense .....                        | 51,472.81       |                     | 44,235.06       |                     | 18,208.66              |                     |
| Capital Outlay .....                         | 26,524.23       | 204,734.16          | 10,032.96       | 182,574.78          | 1,825.03               | 87,995.10           |
| HOLT HATCHERY                                |                 |                     |                 |                     |                        |                     |
| Salaries .....                               |                 |                     | 3,712.91        |                     | 2,407.17               |                     |
| General Expense .....                        |                 |                     | 2,878.31        |                     | 1,421.08               |                     |
| Capital Outlay .....                         |                 |                     | 383.45          | 6,974.67            | 250.00                 | 4,078.25            |
| EVERGLADES DIVISION                          |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 92,333.86       |                     | 94,626.02       |                     | 51,124.28              |                     |
| General Expense .....                        | 49,923.43       |                     | 51,868.33       |                     | 24,717.06              |                     |
| Capital Outlay .....                         | 28,245.71       | 170,503.00          | 14,757.52       | 161,251.87          | 4,063.45               | 79,904.79           |
| CENTRAL FLORIDA DIVISION                     |                 |                     |                 |                     |                        |                     |
| Salaries .....                               | 122,764.70      |                     | 128,320.30      |                     | 71,299.56              |                     |
| General Expense .....                        | 45,852.42       |                     | 45,844.70       |                     | 21,419.68              |                     |
| Capital Outlay .....                         | 22,625.33       | 191,242.45          | 15,254.09       | 189,419.09          | 14,505.02              | 107,224.26          |
|  |                 | \$1,909,047.45      |                 | \$1,749,279.31      |                        | \$ 917,853.07       |



## GAME MANAGEMENT

(Continued from Page 19)

where a census was made in the summer of 1953. This showed an estimated 2,000 turkeys present in the two counties. This number has built up from 162 birds which were released over a two year period. Prior to this restoration program, no wild turkeys were known to exist in the area. Restocking success on the deer release areas has been difficult to evaluate since there has been insufficient time for reproduction to make a measurable difference. Deer damage has been on the increase since the initiation of this project, but the increase in lands being cleared and used for watermelons, citrus and other agricultural crops is as great a factor in the increased damage as is the increase in the white-tailed deer population. It is felt that at the present time most of this damage can be adequately controlled through proper use of chemical and audio repellents.

One of the most important investigations projects deals with the Central and Southern Florida Flood Control District and plans for water control in the St. Johns and Kissimmee Valleys. The task here is to evaluate the effects of water control works, recommend mitigation measures and advise on operating plans. The size and location of the area, involving 17 counties in central and south Florida, make this of critical importance. It is quite rare for a state game and fish agency to have a chance to take part in the planning of such a tremendous land management operation, and it is imperative that the Game and Fresh Water Fish Commission make the most of this opportunity. Activity during the past two years can be broken down into two general phases, administrative and biological. Administrative details included office work, correspondence, attendance at meetings, review of engineering plans, co-operation and liaison with various agencies, particularly the Central and Southern Florida Flood Control District, the Corps of Engineers, the U. S. Fish and Wildlife Service, and the Everglades National Park. Biological work has included a study of water levels, general effect of the various levels on vegetation and wildlife, census of waterfowl populations, waterfowl food habits study, and an investigation of the Everglades frogging industry. This inves-

tigation indicates the south Florida frog resource supports a million dollar industry today. It is calculated that the annual take of frogs in south Florida is approximately 900,000 pounds. The prices on these legs range from 80c to \$1.25 per pound. Although the fact that the frog industry is a million dollar business will come as a surprise to many, of even more importance is the fact that as late as 1948 the same industry annually grossed more than \$5,000,000. This drastic slump must concern the Game and Fresh Water Fish Commission greatly. The reasons for it and what to do about them are pressing questions. It is essential that such information as is gathered by the present studies be at hand before definite practical management recommendations can be made.

In game management as in any other business, it is essential to know the status of current stocks, the harvest and replacements. To accomplish this, a broad survey of wildlife harvest and economics of hunting in Florida has been conducted. This has given valuable and much needed information on hunter activity and game kill, facts never before available. Because of this information, partially shown in Tables 4, 5 and 6, hunting regulations can now be much more realistic than in the past.

The developmental and maintenance phases of the game management program are directed toward improving wildlife conditions on its own lands, its leased wildlife management areas, and throughout the state. Such work takes many forms. There are construction and maintenance of fences, gates, roads, fire lanes, and buildings. Food plots must be established and cultivated. Boundary lines must be posted and controlled burning carried out. Much work of this nature has been accomplished on the various wildlife management areas during the biennium. Sixty-two bridges have been built to assist in operation and administration of the areas and to facilitate access by hunters. Eighty-seven and a half miles of road have been improved by filling, grading, brushing and clearing. Sixty blinds were built on the St. Marks goose hunt area for the convenience of hunters during the 1954 season. Controlled burning has been carried out on approximately 200,000 acres each year.

Eleven checking stations have been built during the biennium to permit successful administration of

the various managed hunts. On those areas requiring the \$5.00 public hunt area permit or other special permit, all hunters are required to check into and out of the area. This cannot be satisfactorily accomplished without the use of established checking stations. Two equipment storage sheds approximately 20'x40' were built, one on the Blackwater and one on the J. W. Corbett Management Area. Thirty-three and one-quarter miles of four point barbed wire fence were built on the exterior boundaries of the various areas. The two principal jobs were one of 17 miles on the Lake Butler Management Area and one of eight miles on the Aucilla Management Area. These two jobs were accomplished through contract. Approximately 600 miles of fire lane were plowed each year. This was done primarily by the landowners with the assistance of the Game and Fresh Water Fish Commission.

Approximately 500 miles of exterior boundary fencing were maintained on the various management areas. In addition to keeping the actual fence in good repair, this required maintenance and replacement of gates and cattle gaps as necessary. During the past year, a scheme of identification painting of exterior boundaries was adopted. This provided for the painting of the upper portion of every fifteenth post with bright yellow paint. In addition, large 4'x4' management area signs were erected at the corners and principal entries of all management areas. Besides this, the usual posting with small metal signs was maintained about the outside boundaries of all areas.

Approximately 115 nest boxes for wood ducks were established on the Steinhatchee and Lake Butler Areas. A total of approximately 40 turkey feeders was maintained on the various areas. Several experimental plantings of aquatics were made and a total of 350 acres of food plantings was established and maintained during the period. These food plantings, generally in small blocks of one-eighth to four or five acres, offer considerable improvement to most natural game habitat, and have resulted in an increase in game populations on all management areas.

A proposal for an additional development project has recently been made and it is expected that approval will be received in the very near future. This project provides for the cutting of boat trails in the impoundment areas of the Central and Southern Florida Flood Control

District. Such boat trails will open up and make accessible for public use the vast areas of excellent fishing and outdoor recreation in this extremely fine and important area. In addition to carrying out the above-mentioned land management practices, the Commission has made satisfactory grazing, wood salvage, and oil leases on its own lands.

## REPORT OF PROGRESS

*(Continued from Page 7)*

lakes and streams—geographically, physically, and biologically. It will furnish, for the first time, extremely valuable basic information on the inland fisheries of Florida.

Control of the destructive water hyacinth throughout the State was continued at an accelerated pace during the recent months. This highly popular and valuable project to clear the fresh-waters of the State will undoubtedly continue far into the future.

Fish Hatchery operations and stocking programs in private and public waters of the State were also continued during the past biennium.

### GAME MANAGEMENT

Land acquisition was strongly emphasized by the Game Management section during the past biennium, and will continue to be strongly emphasized in the future. Over 2,717,499 acres of lands have been opened to public hunting. Another 20,000 acres in the Steinhatchee area will be put under management during 1955. Other acreage will be added whenever feasible. The opening of lands to public hunting is considered to be highly important to the average hunter who does not have access to private lands.

At the end of the biennium, there were 17 active projects underway in Game Management. These include research, development and maintenance programs for all of Florida's important game species—dove, waterfowl, turkey, squirrel, deer, quail and others. Also important are the investigation projects concerning water and flood control and land use.

Deer and turkey restorations were highly successful during the biennium, with 567 whitetail deer and 682 wild turkeys being restocked throughout the State. The Commission feels that its programs of game management, research, restoration, habitat improvement, feeder main-

tenance, land management and the other allied game projects have been most valuable to both the Commission and the sportsmen of Florida.

### GENERAL

We feel that the Florida Game and Fresh Water Fish Commission has accomplished much with its many activities to protect and restore the game and fish resources with its limited funds, but we also feel that much more remains to be done. We're sure that with the help and cooperation of the sportsmen and general public we can continue to do our job, that of conserving, protecting and restoring the fish and wildlife for future Florida generations.

END.

## YOUTH CONSERVATION

*(Continued from Page 31)*

letic field, construction of an Administration Building, and installation of other sanitation buildings. The Administration Building will serve as a recreation hall and will include lecture rooms, hospital, staff headquarters, library, exhibit room and platform stage. Until erection of this building is completed, proposed construction of the Mess Hall will serve these multiple functions.

Present plans for 1955 Summer Camp Session call for a six week encampment with approximately 500 campers expected to register.

On February 27, 1954, the position of Executive Secretary was created. He is responsible for the establishment, development and operation of any camps or grounds operated by the Game and Fresh Water Fish Commission. He is responsible for the equipment and material assigned to such camps and grounds and other such properties as may be contributed, donated, or acquired. He serves as an impartial adult advisor to the officers, Board of Directors and representatives of the organization as well as those of its individual participating clubs. He is also responsible for encouraging and establishing additional individual clubs throughout the state of Florida. He also draws and submits plans and recommendations to the Board of Directors.

The trend in Youth Education is becoming a most important program in the field of conservation. Every year more states are becoming cognizant of this trend and are gearing themselves for an all-out program

for young people. The Florida Game and Fresh Water Fish Commission has recognized the importance of this program and is making every effort to promote and encourage the concepts necessary for the success of this worthwhile project. The Commission has intelligently approached this conservation education program by organizing the Junior Conservation Club League with its affiliated individual clubs. The promotion and development of a permanent Youth Conservation Camp also serves notice to the peoples of Florida that here the seeds of good conservation will be impregnated in the minds of our youth.

Further testimony of this resolute idea is the creation of the position of Executive Secretary of the Junior Conservation Club League. It is the hope that the Conservation Education Program can be conducted as a cooperative program with the State Board of Education in the very near future.

Finally, it is a realization of the Game Commission that people are the most important resource of any country. This being the case, it becomes a fundamental obligation to help make it possible for our youth to develop their physical and mental, moral and spiritual possibilities to the fullest extent to the end that they may live rich and fruitful lives.



## LAW ENFORCEMENT

(Continued from Page 34)

pearances. The Wildlife Officer is expected to make suitable speeches before organized groups, maintain his equipment in good working order, assist in fair exhibits and special promotions, and make many appearances in court. He is also concerned with maintaining good relations between the sportsmen of the state and the Game Commission. And, when necessary, he assists in search and rescue missions involving distressed persons.

In all, the Wildlife Officer has a well-rounded schedule of duties to perform, not the least of which is to attend the annual Wildlife Officers Training School.

The Training School is designed to offer all Law Enforcement personnel a complete and concise refresher course in the latest available information concerning all Commission activities. The accent is on Fish and Game Laws, Law Enforcement Techniques, Wildlife Code, Commitment and Imprisonment, Subpoenas, Searches, Seizures, Forfeitures, the Constitution of Florida, and allied topics. First Aid, Game Management, Fish Management, Wildlife Studies, Federal Court Procedures, and Field Demonstration Work also receive specific consideration.

The Commission feels that the past results from the professional improvement program in the Wildlife Officers Training School have been highly satisfactory. The annual Training School has become indispensable to the operation of an aggressive and efficient wildlife conservation department.

The Florida Game Commission fully realizes that only through the cooperation of an informed and interested public can game law violators be controlled, and good conservation practices be employed. This is the reason why Wildlife Officers are expected to serve in so many diverse duties. One of the major duties of the Wildlife Officer is that of assisting in the development of an educational and informational program designed to halt game-law violations.

The Wildlife Officer is the principal medium through which the general public has the greatest contact with the Florida Game Commission, and its programs and activities.

Total figures for Law Enforcement Work carried on by Wildlife Officers in the five Divisions during the past biennium are as follows: Total No. of Hours Spent on Land Patrol—787,440. Total No. Miles Traveled in Law Enforcement—3,914,677. Total Hours Spent in Water Patrol—97,786. Total Licenses Checked—341,216. Total No. of Arrests—4,607. Total No. of Fish Traps Seized—17,678. Total No. Seines Seized—103. Total No. of Hours Spent in Air Patrol—4,885.

From the above figures it can be seen that Law Enforcement is one of the major programs in which the Game Commission is involved.

Law Enforcement is, without question, one of the most important branches of the many varied programs and activities carried on by the Florida Game and Fresh Water Fish Commission.

## EVERGLADES DIVISION

(Continued from Page 27)

and arranging materials for radio and television stations. He organized and helped keep contact with the Junior Conservation League Clubs which are steadily growing in numbers and size and have become an important part in the activities of the division. He made periodic visits to schools, superintendents of public instruction, county judges, prosecuting officers, Chambers of Commerce, and arranged fair exhibits, showed conservation films, and answered a considerable amount of mail and personal requests for information and literature. Our ten expositions have been seen by over 350,000 persons. Over 32,000 literature hand outs and close to 6,200 mail outs have been made to interested parties. At Miracle Day, put on at Fort Pierce by Future Farmers of America, over 10,000 people visited there. Seven fishathons were successfully organized. We feel that our educational program is being heard and read by the public with increasing interest and that violations are gradually decreasing because of this work, in combination with the excellent cooperation given this department by the wildlife officers.

The recent acquisition of land in Hendry County will lend more aid to our game management process. The recent construction of a bream fish hatchery at Okeechobee will help solve some of our restocking programs.

This division is proud of its part in the Civil Defense alert practice held on June 14, 1954.

Other duties of our organization include furnishing information on cattle rustlers, recovering bodies of persons drowned while fishing, locating lost persons, fishing and hunting parties in the wilderness of the Everglades or the vastness of Lake Okeechobee.

## INFORMATION AND EDUCATION

(Continued from Page 37)

ture Bureau, wherein lectures on any topic may be scheduled. The Bureau would have on hand a large selection of officially-approved basic lecture material available for use by all Commission employees.

### INFORMATION REQUESTS

Literally thousands of information requests are received annually in the State Coordinating and Division Offices. These are handled as a routine item of business of all I & E personnel.

### SPECIAL PROMOTIONS

Special Promotions include such items as Children's Fishathons, fishing contests and other special programs usually carried on at the request of groups of individuals not connected with the Commission. These are especially valuable in maintaining good relations with communities and citizens at large.

### ORGANIZATIONS AND CONVENTIONS

It is the duty and responsibility of all I & E personnel to cooperate with all organizations requesting assistance. Such organizations include sportsmen's clubs, rifle associations, women's clubs, civic organizations and other comparable groups. The I & E Officer also attends many conventions in his capacity as an official representative of the Commission.

### PHOTOGRAPHY

All I & E personnel are expected to be fully conversant in field photography. Division Officers are continually compiling photographs of divisional activities. A Master Photographic File is now being set up in the combined office of the State Coordinator and the Magazine Editor. This file will carry complete reference data on all Commission photographs located in all sections of the



state. Division photographic files are also being established. All such photographs are available for use in the Commission - published **FLORIDA WILDLIFE Magazine**, and also for use in newspapers, magazines and on television programs.

#### **PUBLIC SCHOOL RESOURCE-USE EDUCATION**

No well-rounded program of resource-use education has ever been established by the Commission. The reason for this is the lack of sufficient finances to publish sufficient material for use in public schools. A plan to initiate a public school conservation education program is now being initiated. This will be done in cooperation with the Florida State Department of Education. A special Conservation Education Kit folder has been prepared, and as many complete kits will be furnished to public school teachers this year as is financially feasible within the limitations of the Information and Education budget.

#### **JUNIOR CONSERVATION CLUBS AND LEAGUE**

This program is more fully covered in this Biennial Report under the section entitled "Youth Conservation Education Program." Responsibility for, and supervision of, the Executive Secretary of the League falls under the jurisdiction of the State Coordinating I & E Officer.

#### **INTERNAL EMPLOYEE TRAINING**

It is also within the province of the State Coordinating Office to prepare, supervise and maintain all employee training programs of a general nature. The most important of these employee schools is the annual Wildlife Officers' Training School held each summer for all commissioned employees. This annual school, soon to enter its fourth session, consists of a series of refresher courses taught by Commission personnel to all employees. The accent during 1955 will be on law-enforcement, with suitable courses in game and fish management, auditing and records, information and education, courtesy, safety and allied topics.

#### **SUMMARY**

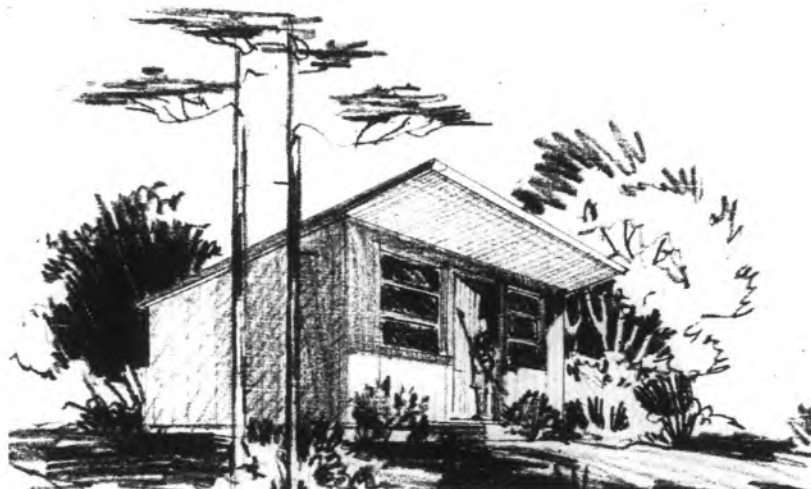
In general, the Information and Education section is charged with the responsibility of informing and educating the public to proper conservation methods and practices. It is vitally concerned with publicizing the activities and policies of the Florida Game and Fresh Water Fish Commission. It is always interested



in maintaining good relations between the sportsmen and the Commission. It is, of course, interested in employee training and morale. It must, at all times, work in cooperation with all branches of the Commission in all fields, and it must attain continuous and complete con-

tact with all Commission employees and programs. Essentially, the Information and Education section is a service department—offering its service to all persons connected with the Commission, and to all sportsmen and citizens of Florida and the United States.





# THE D COMES

**T**hey said it couldn't be done. They said it would never be done. But they were wrong. Just as wrong as they could be.

For now the dream is coming true. Or, more accurately, a thousand and more dreams are all coming true, at one time and in one place. The hopes, the visions, the ambitions and the desires of thousands of boys and girls throughout Florida are all coming to life on Lake Eaton in the Ocala National Forest.

At that place, and on June 19, 1955, the Junior Conservation Camp will open for a series of six one-week outings. Hundreds of youngsters will take advantage of the complete facilities located on 57 acres held under long-term lease by the Florida Game and Fresh Water Fish Commission.

Now it is true that the camp has opened before, in this and other locations. But it is also true that it has never before opened as it will during 1955. For now the complete construction plans for the camp have been officially approved by the sponsoring Game and Fresh Water Fish Commission. Now, many persons and organizations have pledged their assistance and cooperation.

And many more will soon pledge their assistance and cooperation—in money, time and materials.

For this Junior Conservation Camp will undoubtedly be the most important single influence that will affect Florida's conservation future. It is no exaggeration to say that this camp may be the one factor upon which hinges the salvation of all wildlife in this State.

From this camp will graduate the fishermen, the hunters and the conservationists of future years. In this camp, our youth of today will be trained to be the outdoor sportsmen and sportswomen of tomorrow.

If it is true that the future of our state and country lies within the youth who will soon grow into adult men and women, then, most certainly, the future of wildlife conservation in Florida lies within our youngsters of today.

The Game Commission realizes these facts. It has long felt that there could be no more important program put into effect than its Junior Conservation Education work that is contained in the Junior Conservation Clubs, League and Camp.

The summer camp, which will undergo its fourth year of operation in 1955, is open to all youngsters

Hundreds of youngsters, as typified by the two in the photo below, will be heading for one of the six one-week sessions at the new camp, starting on June 19th.

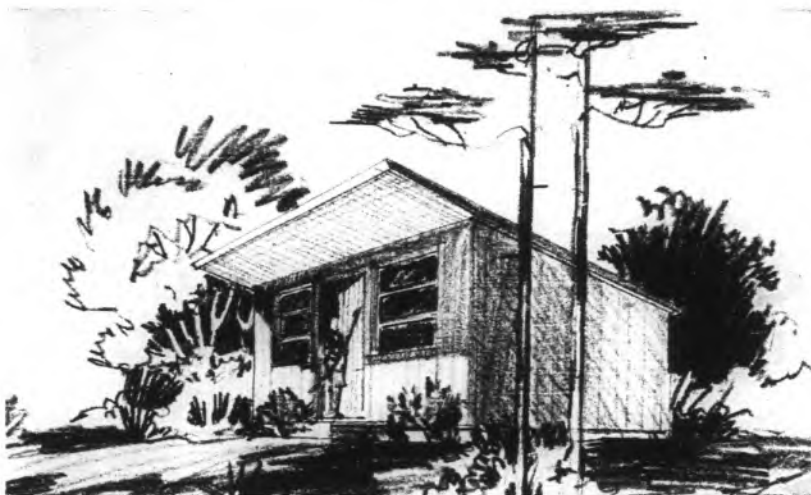


The youthful Conservationists will receive instructions in a great variety of activities connected with the outdoors. Competent instructors, specialists in their respective fields, will be on hand to supervise and instruct the campers.





# DREAM TRUE



from eight to 18 years of age who are members of the Junior Conservation Club League of Florida.

The construction of ten modern cabins and a mess hall this year as part of the permanent youth camp facilities will make it possible to accommodate about 750 youngsters in groups of 125.

The Commission has already allocated a total of \$3,750 toward this construction work. The Florida Outdoor Writers Association has contributed an additional \$200. Dr. H. R. Wilbur, president of the Florida Wildlife Federation, has pledged his assistance and the cooperation of the organization he represents.

Cooperation in planning and construction of the camp has also been obtained from the U. S. Forest Service, the Marion County Board of Commissioners, and the Florida State Road Department.

But still more assistance is needed. It will take a total of \$18,500, not counting labor, to construct the ten cabins and messhall this year. Future construction of an administration building and other camp facilities will take additional revenue.

That sounds like a big plan and a huge amount of money. But it is dirt cheap when you consider the

great importance that this camp is destined to assume in the lives of countless Florida youngsters.

Denver Ste. Claire, Executive Secretary of the League, has said that each cabin will measure 16x16 feet and be constructed of concrete blocks at a cost of \$850 each. The mess hall, 100x48 feet, will cost \$10,000, not including kitchen equipment.

These are the bare essentials for the camp. Much more will be added in the future, with the cooperation of today's sportsmen.

The establishment of the long-sought permanent Junior Conservation Camp, and the recent reinvigoration of the Junior Sportsmen Clubs to a total of 51 active organizations, are concrete achievements of the hard work done by many persons in the last few years.

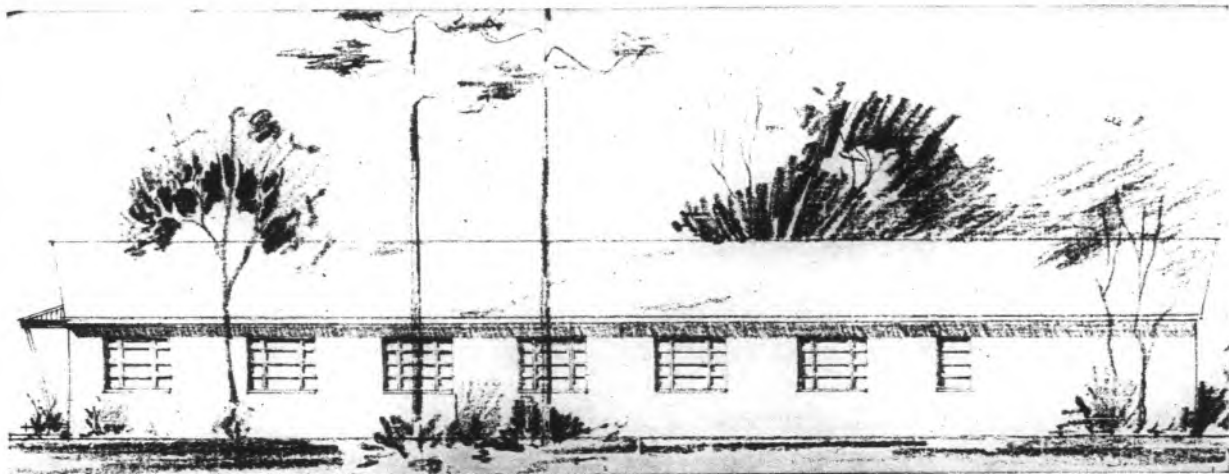
More hard work is needed. And now is the time for it.

The Game Commission has issued the word that "Those who wish to underwrite the construction cost of a cabin, or make donations to the Junior Conservation Camp construction program, may do so by contacting the Executive Secretary, Junior Conservation Camp, Williston, Florida."

**Bull sessions are an important and enjoyable part of the camp activities.**

**"Outfished by a mere girl?" Horseplay is an inevitable outlet for the abundant energy of the youthful campers.**





This architect's drawing shows the 100' by 48' mess hall, the first permanent building to be added to the camp this year. Complete cooking, eating, and recreational facilities are included in the finished plans.

As a State agency, the Commission will not allow any solicitations to be made in its behalf. It can only simply state that the Camp is now being constructed, and those who wish to assist in the program may do so. But all donations must be made directly to the Camp, and not to the Game Commission.

Those who wish to help, by contributing money, time or materials, will be welcomed by the Junior Conservation Club League and its Camp supervisors. The donated materials may be anything from concrete blocks to frying pans. The money may be anything from old pennies to new thousand-dollar checks. The

time may be the minute you spend in talking to a friend about the Camp, or the day or week you contribute to the cause.

The purpose of the Camp? The purpose of the League? The purpose of the many clubs throughout the State?

All the answers are simple. All the answers are the same: To instill good conservation practices and fine sportsmanship in the minds of thousands of youngsters.

And, perhaps most important to the kids themselves, to furnish a place and a method for the kids to have a downright good time in a true outdoor style. For the Junior Camp

sessions may be educational, but they are also fun, as hundreds of youngsters who have already attended will gladly attest.

So now, at long last, after many difficulties, the permanent camp is being built.

Now is the time when you can easily contribute to a most worthwhile cause.

Now is the time when you can lend a hand to the fine future of many a youngster.

Now is the time when your help is needed most.

Now is the time.

For the dream is coming true.

END.

Lectures by professional men in the outdoor field are an important part of the plan of the day. The small fry outdoorsmen leave the camp better informed on all the various subjects pertaining to better conservation practices necessary to their future hunting and fishing.



Right, Partridge pea plantings on the Gaskin Wildlife Management Area in West Florida. Such plantings as these on wildlife management areas contribute to the increase in game and make better hunting available to the general public.



As part of Florida's game management program, soil is prepared for the planting of Pensacola Bahia in the fenced plot shown in this photograph. This plant is an excellent quail and turkey food.



Above, a cannon throw net, used to trap waterfowl for banding and investigation. Banding of birds provides much valuable information on migration, life history, and population.



State technicians banding trapped birds. Many birds pass through this area in their migration route down the Mississippi Valley. Some have been recovered near Miami three to five days after having been banded in Franklin County.

Below, a wildlife officer and a day's "catch" ready to be dyed for identification.







Above, birds have just been trapped and banded and are being examined to determine their age.



Above, wild turkeys being released in DeSoto County as part of the program of the Peace River turkey restoration. This project has been an outstanding success. From an original stocking of 162 birds, these counties now have a good population of turkeys where formerly none of these birds were to be found.



Left, young turkey hen, a native wild bird which has been caught and will be used for restocking.



Turkey feeders have proved to be extremely worthwhile in establishing birds on new areas in restocking operations. It is also believed they are of benefit in increasing the carrying capacity on natural range and thus improve turkey populations. Left, a typical turkey feeder set up in Collier Wildlife Management Area. Above, another type of feeder, placed on a platform out of reach of hogs, thus requiring no fencing.



Above, an automatic quail feeder set up for operation. These feeders, which are filled with cracked corn or other grain, have proven very successful in increasing quail populations. They have been particularly effective in South Florida, since their use is compatible with livestock operations. Food plots in such an area would, of course, require fencing, and are thus prohibitively expensive.

Lespedeza plantings provide food sources for quail in the fall, winter, and early spring. These are widely used and are quite valuable in north Florida quail habitat improvement work. In the picture below, Lespedeza seedlings have just been planted.









